

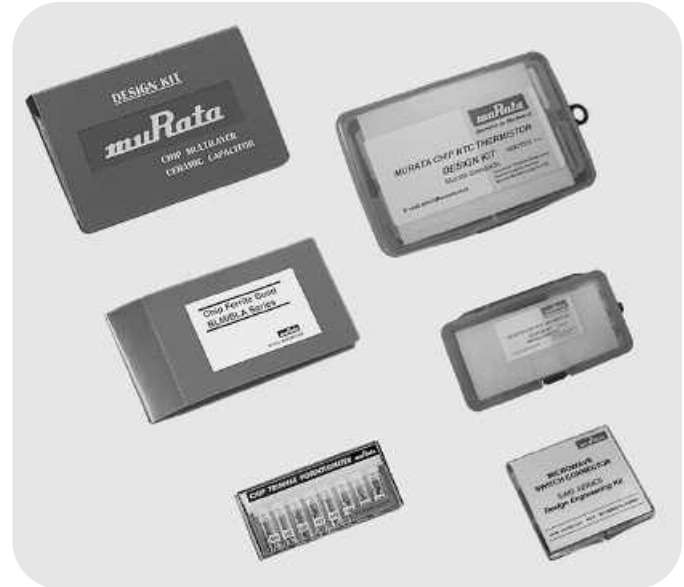
**2009**  
**DESIGN**  
**ENGINEERING KITS**  
CATALOG NO. G-06-F



Please visit our website:  
[www.murata.com](http://www.murata.com)

Murata offers a complete selection of Design Engineering Kits specifically intended to aid the design engineer in prototyping applications. Each kit contains a wide selection of commonly used values and sizes that meet a variety of circuit design requirements.

For additional information on the kits contained in this catalog, please contact your local Murata Sales Representative. Visit “contact us” at [www.murata-northamerica.com](http://www.murata-northamerica.com) for representative locations.



## Available Kits

- General Ceramic Chip Capacitors
- ASCap Hi-Frequency Ceramic Chip Capacitors
- Low Inductance Capacitors
- Capacitor Arrays
- Automotive Grade Ceramic Chip Capacitors
- Radial Leaded Monolithic Ceramic Chip Capacitors
- Medium Voltage Ceramic Chip Capacitors
- Radial Leaded Medium Voltage Disc Capacitors
- Ceramic Chip Safety Capacitors
- Radial Leaded Disc Safety Capacitors
- HPP Capacitor Kits
- Microwave Coaxial Connectors
- EMI Filter Kits
- Chip Inductor Kits
- Chip Thermistor Kits
- Variable Trimmer Capacitor Kits
- Variable Potentiometer Kits

# DESIGN ENGINEERING KITS TABLE OF CONTENTS



A. 7-3/4x5  
Blue Binder with Sleeves



B. 8x4x1  
Blue Binder with Sleeves



C. Soft Plastic Case



D. 5x2x3/4  
Hard Plastic Box



E. 4-3/4x4-3/4x3/4  
Hard Plastic Box

| Kit Part Number  | Size      | Description                         | Package Style                     | Style Code | Page |
|--|-----------|-------------------------------------|-----------------------------------|------------|------|
| <b>General Ceramic Chip Capacitors</b>                                   |           |                                     |                                   |            |      |
| GRM02-KIT- - - - - E   | 01005     | (6.3 to 16 VDC)                     | 7-3/4x5 blue binder with sleeves  | A          | 5    |
| GRM03-KIT- - - - - E   | 0201      | (4 to 25 VDC)                       | 7-3/4x5 blue binder with sleeves  | A          | 5    |
| GJM03-KIT- - - - - E   | 0201      | (6.3 to 25 VDC)                     | 7-3/4x5 blue binder with sleeves  | A          | 6    |
| GJM03-KIT-TTOL- - - E  | 0201      | (6.3 to 25 VDC)                     | 7-3/4x5 blue binder with sleeves  | A          | 6    |
| GJM15-KIT- - - - - E   | 0402      | (50 VDC)                            | 7-3/4x5 blue binder with sleeves  | A          | 7    |
| GJM15-KIT-TTOL- - - E  | 0402      | (50 VDC)                            | 7-3/4x5 blue binder with sleeves  | A          | 7    |
| GRM15-KIT- - - - - E   | 0402      | (6.3 to 50 VDC)                     | 7-3/4x5 blue binder with sleeves  | A          | 8    |
| GRM18-KIT- - - - - E   | 0603      | (6.3 to 50 VDC)                     | 7-3/4x5 blue binder with sleeves  | A          | 9    |
| GRM- - - KIT-HICAP- - E  | 0402-1210 | (6.3 to 50 VDC) 1 - 100µF           | 7-3/4x5 blue binder with sleeves  | A          | 10   |
| GRM- - - KIT-TCHIK- - E  | 0402-1210 | (6.3 to 50 VDC) 150pF - 22µF        | 7-3/4x5 blue binder with sleeves  | A          | 11   |
| GRM- - - KIT-TC- - - - E   | 0402-1206 | (25 to 50 VDC) C0G/U2J              | 7-3/4x5 blue binder with sleeves  | A          | 12   |
| <b>ASCap Hi-Frequency Ceramic Chip Capacitors</b>                        |           |                                     |                                   |            |      |
| GJM03-KIT- - - - - E   | 0201      | (6.3 to 25 VDC)                     | 7-3/4x5 blue binder with sleeves  | A          | 6    |
| GJM03-KIT-TTOL- - - E  | 0201      | (6.3 to 25 VDC)                     | 7-3/4x5 blue binder with sleeves  | A          | 6    |
| GJM15-KIT- - - - - E   | 0402      | (50 VDC)                            | 7-3/4x5 blue binder with sleeves  | A          | 7    |
| GJM15-KIT-TTOL- - - E  | 0402      | (50 VDC)                            | 7-3/4x5 blue binder with sleeves  | A          | 7    |
| GQM18-HIQ0603KIT- E  | 0603      | Hi-Q (50 to 100 VDC)                | 7-3/4x5 blue binder with sleeves  | A          | 13   |
| GQM18-HIQ250VKIT- E  | 0603      | Hi-Q (250 VDC)                      | 7-3/4x5 blue binder with sleeves  | A          | 13   |
| GQM21-HIQ0805KIT- E  | 0805      | Hi-Q (50 to 100 VDC)                | 7-3/4x5 blue binder with sleeves  | A          | 14   |
| ERB18-HIQ0603KIT- E  | 0603      | Hi-Q (250 VDC)                      | 7-3/4x5 blue binder with sleeves  | A          | 15   |
| ERB21-HIQ0805KIT- E  | 0805      | Hi-Q (250 VDC)                      | 7-3/4x5 blue binder with sleeves  | A          | 15   |
| ERB32-HIQ1210KIT- E  | 1210      | Hi-Q (500 VDC)                      | 7-3/4x5 blue binder with sleeves  | A          | 15   |
| MA19-HIQ0505KIT- E   | 0505      | Hi-Q (150 VDC)                      | 7-3/4x5 blue binder with sleeves  | A          | 16   |
| MA29-HIQ1111KIT- E   | 1111      | Hi-Q (50 to 500 VDC)                | 7-3/4x5 blue binder with sleeves  | A          | 16   |
| MA59-HIQ0505KIT- E   | 0505      | Hi-Q (150 VDC)                      | 7-3/4x5 blue binder with sleeves  | A          | 17   |
| MA69-HIQ1111KIT- E   | 1111      | Hi-Q (50 to 500 VDC)                | 7-3/4x5 blue binder with sleeves  | A          | 17   |
| <b>Low Inductance Capacitors</b>   |           |                                     |                                   |            |      |
| LL-LOWESL-KIT-B- - E   | 0402-1206 | Low ESL (4 to 50 VDC)               | 7-3/4x5 blue binder with sleeves  | A          | 18   |
| <b>Capacitor Arrays</b>  |           |                                     |                                   |            |      |
| GNM-CARRAY-KIT-B- E  | 0504-1206 | Cap Array (10 to 50 VDC)            | 7-3/4x5 blue binder with sleeves  | A          | 19   |
| <b>Automotive Grade Ceramic Chip Capacitors</b>                          |           |                                     |                                   |            |      |
| GCM15-KIT- - - - - A   | 0402      | (16 to 50 VDC)                      | 7-3/4x5 blue binder with sleeves  | A          | 20   |
| GCM- - - KIT-C0G- - - A  | 0603-1206 | (50 VDC) C0G, 1pF - .022µF          | 7-3/4x5 blue binder with sleeves  | A          | 21   |
| GCM- - - KIT-X7R- - - A  | 0603-1206 | (10 to 50 VDC) 1000pF - 22µF        | 7-3/4x5 blue binder with sleeves  | A          | 22   |
| GCM- - - KIT-100V- - - A   | 0603-1206 | (100 VDC) C0G, X7R 10pF - .22µF     | 7-3/4x5 blue binder with sleeves  | A          | 23   |
| <b>Radial Leaded Monolithic Ceramic Chip Capacitors (50 to 630 VDC)*</b> |           |                                     |                                   |            |      |
| RPE 100 VDC & less Series  |           |                                     | 7-3/4x5 green binder with sleeves | A          | 24   |
| RPE 250 & 630 VDC Series   |           |                                     | 7-3/4x5 green binder with sleeves | A          | 24   |
| <b>Medium Voltage Ceramic Chip Capacitors (250 VDC to 3.15 KV)*</b>      |           |                                     |                                   |            |      |
| U2J, 250V, 630V, 1KV, 2KV, 3.15KV Series                                 |           |                                     |                                   |            | 24   |
| X7R, 250V, 630V Series   |           |                                     |                                   |            | 24   |
| GR4, X7R, 2KV Series   |           |                                     |                                   |            | 24   |
| <b>Radial Leaded Medium Voltage Disc Capacitor (500 VDC to 6.3 KV)*</b>  |           |                                     |                                   |            |      |
| DE Series  |           | General Use                         | Custom Packaging                  |            | 24   |
| <b>Monolithic Ceramic Chip Safety Capacitor (250 VAC)*</b>               |           |                                     |                                   |            |      |
| GD Series  | 1808-2220 | Class Y3                            | Custom Packaging                  |            | 25   |
| GF Series  | 1808-2220 | Class Y2, X1/Y2                     | Custom Packaging                  |            | 25   |
| <b>Radial Leaded Disc Safety Capacitor (250 VDC)*</b>                    |           |                                     |                                   |            |      |
| KX Series  |           | Reinforced Insulation, Class X1, Y1 | Custom Packaging                  |            | 25   |
| KY Series  |           | Basic Insulation, Class X1, Y2      | Custom Packaging                  |            | 25   |
| <b>HPP Capacitors Kits</b>   |           |                                     |                                   |            |      |
| HPPB5 Series   | 4642      | Nonmagnetic SMD Capacitors          |                                   |            | 26   |
| HPPAH Series   | 2622      | Nonmagnetic SMD Capacitors          |                                   |            | 26   |

\*Note: For availability, please check with your Murata Sales Contact. Part Numbers in kits depend on application.

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

| Kit Part Number                             | Size                   | Description                             | Package Style                  | Style Code | Page |
|---|------------------------|---|--------------------------------|------------|------|
| <b>Microwave Connector Engineering Kits</b> |                        |   |                                |            |      |
| M1KMM8130-SWF01                             | 2.5x2.5x1.4mm          | SWF Series Switch Connector             | Hard plastic box               | E          | 27   |
| M1KMM8430-SWD01                             | 3.3x3.0x1.75mm         | SWD Series Switch Connector             | Hard plastic box               | E          | 27   |
| M1KMM4829-HSC01                             | 2.0x2.0x0.6mm          | HSC Series Ultra Small Cable Connector  | Hard plastic box               | E          | 27   |
| <b>EMI Filter Kits</b>                      |                        |   |                                |            |      |
| EKEMBL03D                                   | 01005, 0201            | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 28   |
| EKEMBL15J                                   | 0402                   | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 28   |
| EKEMBL18G                                   | 0603                   | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 28   |
| EKEMBL8GA                                   | 0603                   | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 29   |
| EKEMBL21D                                   | 0805, 1206, 1806       | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 29   |
| EKEMNFMCB                                   | 0603, 0805             | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 29   |
| EKEMFA31D                                   | 1206                   | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 29   |
| EKEMFL18E                                   | 0603, 0805, 1206       | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 30   |
| EKEMFA20E                                   | 0805                   | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 30   |
| EKEMNFMFH                                   | 0603, 0805, 1206, 1806 | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 30   |
| EKEMDL21J                                   | 0805, 1206             | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 30   |
| EKEMDCC5B                                   | 5.0x5.0mm, 5.0x3.6mm   | Surface Mount EMI Filters               | 8x4x1 blue binder with sleeves | B          | 30   |
| <b>Chip Inductor Kits</b>                   |                        |   |                                |            |      |
| EKLMQ15SC                                   | 0402                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 31   |
| EKLMQG18B                                   | 0603                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 31   |
| EKLMQP02B                                   | 01005                  | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 31   |
| EKLMQP03J                                   | 0201                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 32   |
| EKLMQP15B                                   | 0402                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 32   |
| EKLMQW04C                                   | 03015                  | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 32   |
| EKLMQW15H                                   | 0402                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 33   |
| EKLMQ18GB                                   | 0603                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 33   |
| EKLMQ18JB                                   | 0603                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 33   |
| EKLMQW21A                                   | 0805                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 34   |
| EKLMQW22B                                   | 0805                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 34   |
| EKLMQM18B                                   | 0603                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 34   |
| EKLMM21NB                                   | 0805                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 34   |
| EKLMH32MC                                   | 1210                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 34   |
| EKLMH43MB                                   | 1812                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 35   |
| EKLMQ2PC                                    | 0805, 0806, 1008, 1206 | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 35   |
| EKLMH2MCE                                   | 0806                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 35   |
| EKLMQH3PA                                   | 1210, 1212             | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 36   |
| EKLMM18FB                                   | 0603, 0805             | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 36   |
| EKLMH32CC                                   | 1210                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 36   |
| EKLMM43CC                                   | 1812                   | Surface Mount Inductors                 | 8x4x1 blue binder with sleeves | B          | 36   |
| <b>Chip Thermistor Kits</b>                 |                        |   |                                |            |      |
| NCK1T001                                    | 0201, 0402             | Chip Thermistors                        | Soft plastic box               | C          | 37   |
| NCK1T002                                    | 0603                   | Chip Thermistors                        | Soft plastic box               | C          | 37   |
| NCK1T003                                    | 0201, 0402, 0603       | Chip Thermistors                        | Soft plastic box               | C          | 37   |
| NCK1T0S1                                    | 0402, 0603             | Chip Thermistors                        | Soft plastic box               | C          | 37   |
| PRK1T001                                    | 0603, 0805             | Chip Thermistors                        | Soft plastic box               | C          | 38   |
| PRK1T0S1                                    | 0603, 0805             | Chip Thermistors                        | Soft plastic box               | C          | 38   |
| NCPRK1T001                                  | 0402, 0603, 0805       | Chip Thermistors                        | Soft plastic box               | C          | 38   |
| <b>Variable Trimmer Capacitor Kits</b>      |                        |   |                                |            |      |
| TZ03KT□1                                    | 3mm                    | Leaded Trimmer Capacitor                | Hard plastic box               | D          | 39   |
| TZB4KT□□                                    | 4mm                    | Chip Trimmer Capacitor                  | Hard plastic box               | D          | 39   |
| TZC3KT11                                    | 3mm                    | Low profile Chip Trimmer Capacitor      | Hard plastic box               | D          | 39   |
| TZV2KT01                                    | 2mm                    | Ultra small SMD trimmer capacitor       | Hard plastic box               | D          | 39   |
| TZY2KT01                                    | 2mm                    | Ultra small SMD trimmer capacitor       | Hard plastic box               | D          | 39   |
| TZS2KT01                                    | 2mm                    | Ultra small SMD trimmer capacitor       | Hard plastic box               | D          | 39   |
| TZR1KT01                                    | 1mm                    | Ultra small SMD trimmer capacitor       | Hard plastic box               | D          | 39   |
| <b>Variable Potentiometer Kits</b>          |                        |   |                                |            |      |
| PVZ3KTA1                                    | 3mm                    | Single turn 3.0mm package               | Soft plastic box               | C          | 40   |
| PVZ3KTK1                                    | 3mm                    | Single turn 3.0mm package               | Soft plastic box               | C          | 40   |
| PVZ2KTA1                                    | 2mm                    | Single turn 2.0mm package               | Soft plastic box               | C          | 40   |
| PVZ3KTG1                                    | 3mm                    | Single turn 3.0mm package               | Soft plastic box               | C          | 40   |
| PVAZKTO1                                    | 2mm                    | Single turn 2.0mm package               | Soft plastic box               | C          | 40   |
| PVG5KTA1                                    | 5mm                    | Single turn 5.0mm package               | Soft plastic box               | C          | 40   |
| PVG5KTH1                                    | 5mm                    | Single turn 5.0mm package               | Soft plastic box               | C          | 40   |
| PVG3KTA1                                    | 3mm                    | Single turn 3.00mm gullwing leaded pkg. | Soft plastic box               | C          | 40   |
| PVG3KTG1                                    | 3mm                    | Single turn 3.0mm J lead pkg.           | Soft plastic box               | C          | 41   |
| PVM4KTC1                                    | 4mm                    | Single turn 4.0mm package               | Soft plastic box               | C          | 41   |
| PVM4KTD1                                    | 4mm                    | Single turn 4.0mm package               | Soft plastic box               | C          | 41   |

## GENERAL CERAMIC CHIP CAPACITORS

### 01005 (6.3 to 16 VDC)

- ULTRA Small chip size, 01005 (L: 0.4 x W: 0.2 x T: 0.2mm).
- Temperature characteristics: C0G, X7R and X5R
- No polarity
- GRM022 series is suited to only reflow soldering.
- GRM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- Stringent dimensional tolerances allow highly reliable, high-speed automatic chip placement on PCBs.
- GRM022 series is suited to miniature microwave module, portable equipment and high-frequency circuit.

### 0201 (4 to 25 VDC)

- VERY Small chip size, 0201 (L: 0.6 x W: 0.3 x T: 0.3mm).
- Temperature characteristics: C0G, U2J, X7R, X6S and X5R
- No polarity
- GRM033 series is suited to only reflow soldering.
- GRM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- Stringent dimensional tolerances allow highly reliable, high-speed automatic chip placement on PCBs.
- GRM033 series is suited to miniature microwave module, portable equipment and high-frequency circuit.

#### GRM02-KIT-----E

| No. | Description            | Murata Global P/N | Qty. |
|-----|------------------------|-------------------|------|
| 1   | 01005/C0G/0.20pF/16V   | GRM0225C1CR20BD05 | 40   |
| 2   | 01005/C0G/0.30pF/16V   | GRM0225C1CR30BD05 | 40   |
| 3   | 01005/C0G/0.40pF/16V   | GRM0225C1CR40BD05 | 40   |
| 4   | 01005/C0G/0.50pF/16V   | GRM0225C1CR50BD05 | 40   |
| 5   | 01005/C0G/0.60pF/16V   | GRM0225C1CR60BD05 | 40   |
| 6   | 01005/C0G/0.70pF/16V   | GRM0225C1CR70BD05 | 40   |
| 7   | 01005/C0G/0.80pF/16V   | GRM0225C1CR80BD05 | 40   |
| 8   | 01005/C0G/0.90pF/16V   | GRM0225C1CR90BD05 | 40   |
| 9   | 01005/C0G/1.0pF/16V    | GRM0225C1C1R0CD05 | 40   |
| 10  | 01005/C0G/1.2pF/16V    | GRM0225C1C1R2CD05 | 40   |
| 11  | 01005/C0G/1.5pF/16V    | GRM0225C1C1R5CD05 | 40   |
| 12  | 01005/C0G/1.8pF/16V    | GRM0225C1C1R8CD05 | 40   |
| 13  | 01005/C0G/2.0pF/16V    | GRM0225C1C2R0CD05 | 40   |
| 14  | 01005/C0G/2.2pF/16V    | GRM0225C1C2R2CD05 | 40   |
| 15  | 01005/C0G/2.7pF/16V    | GRM0225C1C2R7CD05 | 40   |
| 16  | 01005/C0G/3.0pF/16V    | GRM0225C1C3R0CD05 | 40   |
| 17  | 01005/C0G/3.3pF/16V    | GRM0225C1C3R3CD05 | 40   |
| 18  | 01005/C0G/3.9pF/16V    | GRM0225C1C3R9CD05 | 40   |
| 19  | 01005/C0G/4.0pF/16V    | GRM0225C1C4R0CD05 | 40   |
| 20  | 01005/C0G/4.7pF/16V    | GRM0225C1C4R7CD05 | 40   |
| 21  | 01005/C0G/5.0pF/16V    | GRM0225C1C5R0CD05 | 40   |
| 22  | 01005/C0G/5.6pF/16V    | GRM0225C1C5R6DD05 | 40   |
| 23  | 01005/C0G/6.0pF/16V    | GRM0225C1C6R0DD05 | 40   |
| 24  | 01005/C0G/6.8pF/16V    | GRM0225C1C6R8DD05 | 40   |
| 25  | 01005/C0G/7.0pF/16V    | GRM0225C1C7R0DD05 | 40   |
| 26  | 01005/C0G/8.0pF/16V    | GRM0225C1C8R0DD05 | 40   |
| 27  | 01005/C0G/8.2pF/16V    | GRM0225C1C8R2DD05 | 40   |
| 28  | 01005/C0G/9.0pF/16V    | GRM0225C1C9R0DD05 | 40   |
| 29  | 01005/C0G/10pF/16V     | GRM0225C1C100JD05 | 40   |
| 30  | 01005/C0G/12pF/16V     | GRM0225C1C120JD05 | 40   |
| 31  | 01005/C0G/15pF/16V     | GRM0225C1C150JD05 | 40   |
| 32  | 01005/C0G/18pF/16V     | GRM0225C1C180JD05 | 40   |
| 33  | 01005/C0G/22pF/16V     | GRM0225C1C220JD05 | 40   |
| 34  | 01005/C0G/27pF/16V     | GRM0225C1C270JD05 | 40   |
| 35  | 01005/C0G/33pF/16V     | GRM0225C1C330JD05 | 40   |
| 36  | 01005/C0G/39pF/16V     | GRM0225C1C390JD05 | 40   |
| 37  | 01005/C0G/47pF/16V     | GRM0225C1C470JD05 | 40   |
| 38  | 01005/C0G/56pF/6.3V    | GRM0225C0J560JD05 | 40   |
| 39  | 01005/C0G/68pF/6.3V    | GRM0225C0J680JD05 | 40   |
| 40  | 01005/C0G/82pF/6.3V    | GRM0225C0J820JD05 | 40   |
| 41  | 01005/C0G/100pF/6.3V   | GRM0225C0J101JD05 | 40   |
| 42  | 01005/X7R/101pF/10V    | GRM022R71A101KA01 | 40   |
| 43  | 01005/X7R/151pF/10V    | GRM022R71A151KA01 | 40   |
| 44  | 01005/X7R/221pF/10V    | GRM022R71A221KA01 | 40   |
| 45  | 01005/X7R/331pF/10V    | GRM022R71A331KA01 | 40   |
| 46  | 01005/X7R/471pF/10V    | GRM022R71A471KA01 | 40   |
| 47  | 01005/X5R/680pF/6.3V   | GRM022R60J681KE19 | 40   |
| 48  | 01005/X5R/1000pF/6.3V  | GRM022R60J102KE19 | 40   |
| 49  | 01005/X5R/1500pF/6.3V  | GRM022R60J152KE19 | 40   |
| 50  | 01005/X5R/2200pF/6.3V  | GRM022R60J222KE19 | 40   |
| 51  | 01005/X5R/3300pF/6.3V  | GRM022R60J332KE19 | 40   |
| 52  | 01005/X5R/4700pF/6.3V  | GRM022R60J472KE19 | 40   |
| 53  | 01005/X5R/6800pF/6.3V  | GRM022R60J682KE19 | 40   |
| 54  | 01005/X5R/10000pF/6.3V | GRM022R60J103KE19 | 40   |

#### GRM03-KIT-----E

| No. | Description           | Murata Global P/N | Qty. |
|-----|-----------------------|-------------------|------|
| 1   | 0201/C0G/0.50pF/25V   | GRM0335C1ER50BZ01 | 40   |
| 2   | 0201/C0G/1.0pF/25V    | GRM0335C1E1R0CD01 | 40   |
| 3   | 0201/C0G/1.2pF/25V    | GRM0335C1E1R2CD01 | 40   |
| 4   | 0201/C0G/1.5pF/25V    | GRM0335C1E1R5CD01 | 40   |
| 5   | 0201/C0G/1.8pF/25V    | GRM0335C1E1R8CD01 | 40   |
| 6   | 0201/C0G/2.0pF/25V    | GRM0335C1E2R0CD01 | 40   |
| 7   | 0201/C0G/2.2pF/25V    | GRM0335C1E2R2CD01 | 40   |
| 8   | 0201/C0G/2.7pF/25V    | GRM0335C1E2R7CD01 | 40   |
| 9   | 0201/C0G/3.0pF/25V    | GRM0335C1E3R0CD01 | 40   |
| 10  | 0201/C0G/3.3pF/25V    | GRM0335C1E3R3CD01 | 40   |
| 11  | 0201/C0G/3.9pF/25V    | GRM0335C1E3R9CD01 | 40   |
| 12  | 0201/C0G/4.0pF/25V    | GRM0335C1E4R0CD01 | 40   |
| 13  | 0201/C0G/4.7pF/25V    | GRM0335C1E4R7CD01 | 40   |
| 14  | 0201/C0G/5.0pF/25V    | GRM0335C1E5R0CD01 | 40   |
| 15  | 0201/C0G/5.6pF/25V    | GRM0335C1E5R6DD01 | 40   |
| 16  | 0201/C0G/6.0pF/25V    | GRM0335C1E6R0DD01 | 40   |
| 17  | 0201/C0G/6.8pF/25V    | GRM0335C1E6R8DD01 | 40   |
| 18  | 0201/C0G/7.0pF/25V    | GRM0335C1E7R0DD01 | 40   |
| 19  | 0201/C0G/8.0pF/25V    | GRM0335C1E8R0DD01 | 40   |
| 20  | 0201/C0G/8.2pF/25V    | GRM0335C1E8R2DD01 | 40   |
| 21  | 0201/C0G/9.0pF/25V    | GRM0335C1E9R0DD01 | 40   |
| 22  | 0201/C0G/10pF/25V     | GRM0335C1E100JD01 | 40   |
| 23  | 0201/C0G/12pF/25V     | GRM0335C1E120JD01 | 40   |
| 24  | 0201/C0G/15pF/25V     | GRM0335C1E150JD01 | 40   |
| 25  | 0201/C0G/18pF/25V     | GRM0335C1E180JD01 | 40   |
| 26  | 0201/C0G/22pF/25V     | GRM0335C1E220JD01 | 40   |
| 27  | 0201/C0G/27pF/25V     | GRM0335C1E270JD01 | 40   |
| 28  | 0201/C0G/33pF/25V     | GRM0335C1E330JD01 | 40   |
| 29  | 0201/C0G/39pF/25V     | GRM0335C1E390JD01 | 40   |
| 30  | 0201/C0G/47pF/25V     | GRM0335C1E470JD01 | 40   |
| 31  | 0201/C0G/56pF/25V     | GRM0335C1E560JD01 | 40   |
| 32  | 0201/C0G/68pF/25V     | GRM0335C1E680JD01 | 40   |
| 33  | 0201/C0G/82pF/25V     | GRM0335C1E820JD01 | 40   |
| 34  | 0201/C0G/100pF/25V    | GRM0335C1E101JD01 | 40   |
| 35  | 0201/X7R/100pF/25V    | GRM033R71E101KA01 | 40   |
| 36  | 0201/X7R/150pF/25V    | GRM033R71E151KA01 | 40   |
| 37  | 0201/X7R/220pF/25V    | GRM033R71E221KA01 | 40   |
| 38  | 0201/X7R/330pF/25V    | GRM033R71E331KA01 | 40   |
| 39  | 0201/X7R/470pF/25V    | GRM033R71E471KA01 | 40   |
| 40  | 0201/X7R/680pF/25V    | GRM033R71E681KA01 | 40   |
| 41  | 0201/X7R/1000pF/25V   | GRM033R71E102KA01 | 40   |
| 42  | 0201/X5R/1500pF/10V   | GRM033R61A152KA01 | 40   |
| 43  | 0201/X5R/2200pF/10V   | GRM033R61A222KA01 | 40   |
| 44  | 0201/X5R/3300pF/10V   | GRM033R61A332KA01 | 40   |
| 45  | 0201/X5R/4700pF/10V   | GRM033R61A472KA01 | 40   |
| 46  | 0201/X5R/6800pF/10V   | GRM033R61A682KA01 | 40   |
| 47  | 0201/X5R/10000pF/10V  | GRM033R61A103KA01 | 40   |
| 48  | 0201/X5R/22000pF/6.3V | GRM033R60J223KE01 | 40   |
| 49  | 0201/X5R/33000pF/6.3V | GRM033R60J333KE01 | 40   |
| 50  | 0201/X5R/47000pF/6.3V | GRM033R60J473KE19 | 40   |
| 51  | 0201/X5R/0.1uF/6.3V   | GRM033R60J104KE19 | 40   |
| 52  | 0201/X5R/0.22uF/4V    | GRM033R60J224ME15 | 40   |

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

# GENERAL CERAMIC CHIP CAPACITORS

## 0201 (6.3 to 25 VDC)

- Better Q and low ESR at VHF, UHF and microwave frequencies.
- 0201 and 0402 sizes with Copper inner electrode.
- Tight tolerance available.  
[W] = +/-0.05pF for 5pF & under [B] = +/-0.1pF for under 10pF  
[C] = +/-0.25pF for under 10pF  
[F] = +/-1% for 10pF & over [G] = +/-2% for 10pF & over
- Low power consumption, yield ratio improvement due to the better Q or lower ESR.
- GJM series is suited to VCO or PA module applications.
- GJM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.

## 0201 (6.3 to 25 VDC)

- Better Q and low ESR at VHF, UHF and microwave frequencies.
- 0201 and 0402 sizes with Copper inner electrode.
- Tight tolerance available.  
[W] = +/-0.05pF for 5pF & under [B] = +/-0.1pF for under 10pF  
[C] = +/-0.25pF for under 10pF  
[F] = +/-1% for 10pF & over [G] = +/-2% for 10pF & over
- Low power consumption, yield ratio improvement due to the better Q or lower ESR.
- GJM series is suited to VCO or PA module applications.
- GJM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.

### GJM03-KIT-----E

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0201/C0G/0.20pF/25V | GJM0335C1ER20BB01 | 40   |
| 2   | 0201/C0G/0.30pF/25V | GJM0335C1ER30BB01 | 40   |
| 3   | 0201/C0G/0.40pF/25V | GJM0335C1ER40BB01 | 40   |
| 4   | 0201/C0G/0.50pF/25V | GJM0335C1ER50BB01 | 40   |
| 5   | 0201/C0G/0.60pF/25V | GJM0335C1ER60BB01 | 40   |
| 6   | 0201/C0G/0.70pF/25V | GJM0335C1ER70BB01 | 40   |
| 7   | 0201/C0G/0.80pF/25V | GJM0335C1ER80BB01 | 40   |
| 8   | 0201/C0G/0.90pF/25V | GJM0335C1ER90BB01 | 40   |
| 9   | 0201/C0G/1.0pF/25V  | GJM0335C1E1R0CB01 | 40   |
| 10  | 0201/C0G/1.1pF/25V  | GJM0335C1E1R1CB01 | 40   |
| 11  | 0201/C0G/1.2pF/25V  | GJM0335C1E1R2CB01 | 40   |
| 12  | 0201/C0G/1.3pF/25V  | GJM0335C1E1R3CB01 | 40   |
| 13  | 0201/C0G/1.5pF/25V  | GJM0335C1E1R5CB01 | 40   |
| 14  | 0201/C0G/1.6pF/25V  | GJM0335C1E1R6CB01 | 40   |
| 15  | 0201/C0G/1.8pF/25V  | GJM0335C1E1R8CB01 | 40   |
| 16  | 0201/C0G/2.0pF/25V  | GJM0335C1E2R0CB01 | 40   |
| 17  | 0201/C0G/2.2pF/25V  | GJM0335C1E2R2CB01 | 40   |
| 18  | 0201/C0G/2.4pF/25V  | GJM0335C1E2R4CB01 | 40   |
| 19  | 0201/C0G/2.7pF/25V  | GJM0335C1E2R7CB01 | 40   |
| 20  | 0201/C0G/3.0pF/25V  | GJM0335C1E3R0CB01 | 40   |
| 21  | 0201/C0G/3.3pF/25V  | GJM0335C1E3R3CB01 | 40   |
| 22  | 0201/C0G/3.6pF/25V  | GJM0335C1E3R6CB01 | 40   |
| 23  | 0201/C0G/3.9pF/25V  | GJM0335C1E3R9CB01 | 40   |
| 24  | 0201/C0G/4.0pF/25V  | GJM0335C1E4R0CB01 | 40   |
| 25  | 0201/C0G/4.3pF/25V  | GJM0335C1E4R3CB01 | 40   |
| 26  | 0201/C0G/4.7pF/25V  | GJM0335C1E4R7CB01 | 40   |
| 27  | 0201/C0G/5.0pF/25V  | GJM0335C1E5R0CB01 | 40   |
| 28  | 0201/C0G/5.1pF/25V  | GJM0335C1E5R1DB01 | 40   |
| 29  | 0201/C0G/5.6pF/25V  | GJM0335C1E5R6DB01 | 40   |
| 30  | 0201/C0G/6.0pF/25V  | GJM0335C1E6R0DB01 | 40   |
| 31  | 0201/C0G/6.2pF/25V  | GJM0335C1E6R2DB01 | 40   |
| 32  | 0201/C0G/6.8pF/25V  | GJM0335C1E6R8DB01 | 40   |
| 33  | 0201/C0H/7.0pF/25V  | GJM0336C1E7R0DB01 | 40   |
| 34  | 0201/C0H/7.5pF/25V  | GJM0336C1E7R5DB01 | 40   |
| 35  | 0201/C0H/8.0pF/25V  | GJM0336C1E8R0DB01 | 40   |
| 36  | 0201/C0H/8.2pF/25V  | GJM0336C1E8R2DB01 | 40   |
| 37  | 0201/C0H/9.0pF/25V  | GJM0336C1E9R0DB01 | 40   |
| 38  | 0201/C0H/9.1pF/25V  | GJM0336C1E9R1DB01 | 40   |
| 39  | 0201/C0H/10pF/25V   | GJM0336C1E100JB01 | 40   |
| 40  | 0201/C0H/12pF/25V   | GJM0336C1E120JB01 | 40   |
| 41  | 0201/C0H/15pF/25V   | GJM0336C1E150JB01 | 40   |
| 42  | 0201/C0H/18pF/25V   | GJM0336C1E180JB01 | 40   |
| 43  | 0201/C0H/20pF/25V   | GJM0336C1E200JB01 | 40   |
| 44  | 0201/C0G/22pF/6.3V  | GJM0335C0J220JB01 | 40   |
| 45  | 0201/C0G/27pF/6.3V  | GJM0335C0J270JB01 | 40   |
| 46  | 0201/C0G/33pF/6.3V  | GJM0335C0J330JB01 | 40   |

### GJM03-KIT-TTOL---E

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0201/C0G/0.20pF/25V | GJM0335C1ER20WB01 | 40   |
| 2   | 0201/C0G/0.30pF/25V | GJM0335C1ER30WB01 | 40   |
| 3   | 0201/C0G/0.40pF/25V | GJM0335C1ER40WB01 | 40   |
| 4   | 0201/C0G/0.50pF/25V | GJM0335C1ER50WB01 | 40   |
| 5   | 0201/C0G/0.60pF/25V | GJM0335C1ER60WB01 | 40   |
| 6   | 0201/C0G/0.70pF/25V | GJM0335C1ER70WB01 | 40   |
| 7   | 0201/C0G/0.80pF/25V | GJM0335C1ER80WB01 | 40   |
| 8   | 0201/C0G/0.90pF/25V | GJM0335C1ER90WB01 | 40   |
| 9   | 0201/C0G/1.0pF/25V  | GJM0335C1E1R0BB01 | 40   |
| 10  | 0201/C0G/1.1pF/25V  | GJM0335C1E1R1BB01 | 40   |
| 11  | 0201/C0G/1.2pF/25V  | GJM0335C1E1R2BB01 | 40   |
| 12  | 0201/C0G/1.3pF/25V  | GJM0335C1E1R3BB01 | 40   |
| 13  | 0201/C0G/1.5pF/25V  | GJM0335C1E1R5BB01 | 40   |
| 14  | 0201/C0G/1.6pF/25V  | GJM0335C1E1R6BB01 | 40   |
| 15  | 0201/C0G/1.8pF/25V  | GJM0335C1E1R8BB01 | 40   |
| 16  | 0201/C0G/2.0pF/25V  | GJM0335C1E2R0BB01 | 40   |
| 17  | 0201/C0G/2.2pF/25V  | GJM0335C1E2R2BB01 | 40   |
| 18  | 0201/C0G/2.4pF/25V  | GJM0335C1E2R4BB01 | 40   |
| 19  | 0201/C0G/2.7pF/25V  | GJM0335C1E2R7BB01 | 40   |
| 20  | 0201/C0G/3.0pF/25V  | GJM0335C1E3R0BB01 | 40   |
| 21  | 0201/C0G/3.3pF/25V  | GJM0335C1E3R3BB01 | 40   |
| 22  | 0201/C0G/3.6pF/25V  | GJM0335C1E3R6BB01 | 40   |
| 23  | 0201/C0G/3.9pF/25V  | GJM0335C1E3R9BB01 | 40   |
| 24  | 0201/C0G/4.0pF/25V  | GJM0335C1E4R0BB01 | 40   |
| 25  | 0201/C0G/4.3pF/25V  | GJM0335C1E4R3BB01 | 40   |
| 26  | 0201/C0G/4.7pF/25V  | GJM0335C1E4R7BB01 | 40   |
| 27  | 0201/C0G/5.0pF/25V  | GJM0335C1E5R0BB01 | 40   |
| 28  | 0201/C0G/5.1pF/25V  | GJM0335C1E5R1CB01 | 40   |
| 29  | 0201/C0G/5.6pF/25V  | GJM0335C1E5R6CB01 | 40   |
| 30  | 0201/C0G/6.0pF/25V  | GJM0335C1E6R0CB01 | 40   |
| 31  | 0201/C0G/6.2pF/25V  | GJM0335C1E6R2CB01 | 40   |
| 32  | 0201/C0G/6.8pF/25V  | GJM0335C1E6R8CB01 | 40   |
| 33  | 0201/C0H/7.0pF/25V  | GJM0336C1E7R0CB01 | 40   |
| 34  | 0201/C0H/7.5pF/25V  | GJM0336C1E7R5CB01 | 40   |
| 35  | 0201/C0H/8.0pF/25V  | GJM0336C1E8R0CB01 | 40   |
| 36  | 0201/C0H/8.2pF/25V  | GJM0336C1E8R2CB01 | 40   |
| 37  | 0201/C0H/9.0pF/25V  | GJM0336C1E9R0CB01 | 40   |
| 38  | 0201/C0H/9.1pF/25V  | GJM0336C1E9R1CB01 | 40   |
| 39  | 0201/C0H/10pF/25V   | GJM0336C1E100GB01 | 40   |
| 40  | 0201/C0H/12pF/25V   | GJM0336C1E120GB01 | 40   |
| 41  | 0201/C0H/15pF/25V   | GJM0336C1E150GB01 | 40   |
| 42  | 0201/C0H/18pF/25V   | GJM0336C1E180GB01 | 40   |
| 43  | 0201/C0H/20pF/25V   | GJM0336C1E200GB01 | 40   |
| 44  | 0201/C0G/22pF/6.3V  | GJM0335C0J220GB01 | 40   |
| 45  | 0201/C0G/27pF/6.3V  | GJM0335C0J270GB01 | 40   |
| 46  | 0201/C0G/33pF/6.3V  | GJM0335C0J330GB01 | 40   |

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

## GENERAL CERAMIC CHIP CAPACITORS

### 0402 (50 VDC)

- Better Q and low ESR at VHF, UHF and microwave frequencies.
- 0201 and 0402 sizes with Copper inner electrode.
- Tight tolerance available.  
[W] = +/-0.05pF for 5pF & under [B] = +/-0.1pF for under 10pF  
[C] = +/-0.25pF for under 10pF  
[F] = +/-1% for 10pF & over [G] = +/-2% for 10pF & over
- Low power consumption, yield ratio improvement due to the better Q or lower ESR.
- GJM series is suited to VCO or PA module applications.
- GJM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.

### 0402 (50 VDC)

- Better Q and low ESR at VHF, UHF and microwave frequencies.
- 0201 and 0402 sizes with Copper inner electrode.
- Tight tolerance available.  
[W] = +/-0.05pF for 5pF & under [B] = +/-0.1pF for under 10pF  
[C] = +/-0.25pF for under 10pF  
[F] = +/-1% for 10pF & over [G] = +/-2% for 10pF & over
- Low power consumption, yield ratio improvement due to the better Q or lower ESR.
- GJM series is suited to VCO or PA module applications.
- GJM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.

#### GJM15-KIT-----E

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0402/C0G/0.10pF/50V | GJM1555C1HR10BB01 | 40   |
| 2   | 0402/C0G/0.20pF/50V | GJM1555C1HR20BB01 | 40   |
| 3   | 0402/C0G/0.30pF/50V | GJM1555C1HR30BB01 | 40   |
| 4   | 0402/C0G/0.40pF/50V | GJM1555C1HR40BB01 | 40   |
| 5   | 0402/C0G/0.50pF/50V | GJM1555C1HR50BB01 | 40   |
| 6   | 0402/C0G/0.60pF/50V | GJM1555C1HR60BB01 | 40   |
| 7   | 0402/C0G/0.70pF/50V | GJM1555C1HR70BB01 | 40   |
| 8   | 0402/C0G/0.80pF/50V | GJM1555C1HR80BB01 | 40   |
| 9   | 0402/C0G/0.90pF/50V | GJM1555C1HR90BB01 | 40   |
| 10  | 0402/C0G/1.0pF/50V  | GJM1555C1H1R0CB01 | 40   |
| 11  | 0402/C0G/1.1pF/50V  | GJM1555C1H1R1CB01 | 40   |
| 12  | 0402/C0G/1.2pF/50V  | GJM1555C1H1R2CB01 | 40   |
| 13  | 0402/C0G/1.3pF/50V  | GJM1555C1H1R3CB01 | 40   |
| 14  | 0402/C0G/1.5pF/50V  | GJM1555C1H1R5CB01 | 40   |
| 15  | 0402/C0G/1.6pF/50V  | GJM1555C1H1R6CB01 | 40   |
| 16  | 0402/C0G/1.8pF/50V  | GJM1555C1H1R8CB01 | 40   |
| 17  | 0402/C0G/2.0pF/50V  | GJM1555C1H2R0CB01 | 40   |
| 18  | 0402/C0G/2.2pF/50V  | GJM1555C1H2R2CB01 | 40   |
| 19  | 0402/C0G/2.4pF/50V  | GJM1555C1H2R4CB01 | 40   |
| 20  | 0402/C0G/2.7pF/50V  | GJM1555C1H2R7CB01 | 40   |
| 21  | 0402/C0G/3.0pF/50V  | GJM1555C1H3R0CB01 | 40   |
| 22  | 0402/C0G/3.3pF/50V  | GJM1555C1H3R3CB01 | 40   |
| 23  | 0402/C0G/3.6pF/50V  | GJM1555C1H3R6CB01 | 40   |
| 24  | 0402/C0G/3.9pF/50V  | GJM1555C1H3R9CB01 | 40   |
| 25  | 0402/C0G/4.0pF/50V  | GJM1555C1H4R0CB01 | 40   |
| 26  | 0402/C0G/4.3pF/50V  | GJM1555C1H4R3CB01 | 40   |
| 27  | 0402/C0G/4.7pF/50V  | GJM1555C1H4R7CB01 | 40   |
| 28  | 0402/C0G/5.0pF/50V  | GJM1555C1H5R0CB01 | 40   |
| 29  | 0402/C0G/5.1pF/50V  | GJM1555C1H5R1DB01 | 40   |
| 30  | 0402/C0G/5.6pF/50V  | GJM1555C1H5R6DB01 | 40   |
| 31  | 0402/C0G/6.0pF/50V  | GJM1555C1H6R0DB01 | 40   |
| 32  | 0402/C0G/6.2pF/50V  | GJM1555C1H6R2DB01 | 40   |
| 33  | 0402/C0G/6.8pF/50V  | GJM1555C1H6R8DB01 | 40   |
| 34  | 0402/C0G/7.0pF/50V  | GJM1555C1H7R0DB01 | 40   |
| 35  | 0402/C0G/7.5pF/50V  | GJM1555C1H7R5DB01 | 40   |
| 36  | 0402/C0G/8.0pF/50V  | GJM1555C1H8R0DB01 | 40   |
| 37  | 0402/C0G/8.2pF/50V  | GJM1555C1H8R2DB01 | 40   |
| 38  | 0402/C0G/9.0pF/50V  | GJM1555C1H9R0DB01 | 40   |
| 39  | 0402/C0G/9.1pF/50V  | GJM1555C1H9R1DB01 | 40   |
| 40  | 0402/C0G/10pF/50V   | GJM1555C1H100JB01 | 40   |
| 41  | 0402/C0G/12pF/50V   | GJM1555C1H120JB01 | 40   |
| 42  | 0402/C0G/15pF/50V   | GJM1555C1H150JB01 | 40   |
| 43  | 0402/C0G/18pF/50V   | GJM1555C1H180JB01 | 40   |
| 44  | 0402/C0G/20pF/50V   | GJM1555C1H200JB01 | 40   |

#### GJM15-KIT-TTOL---E

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0402/C0G/0.10pF/50V | GJM1555C1HR10WB01 | 40   |
| 2   | 0402/C0G/0.20pF/50V | GJM1555C1HR20WB01 | 40   |
| 3   | 0402/C0G/0.30pF/50V | GJM1555C1HR30WB01 | 40   |
| 4   | 0402/C0G/0.40pF/50V | GJM1555C1HR40WB01 | 40   |
| 5   | 0402/C0G/0.50pF/50V | GJM1555C1HR50WB01 | 40   |
| 6   | 0402/C0G/0.60pF/50V | GJM1555C1HR60WB01 | 40   |
| 7   | 0402/C0G/0.70pF/50V | GJM1555C1HR70WB01 | 40   |
| 8   | 0402/C0G/0.80pF/50V | GJM1555C1HR80WB01 | 40   |
| 9   | 0402/C0G/0.90pF/50V | GJM1555C1HR90WB01 | 40   |
| 10  | 0402/C0G/1.0pF/50V  | GJM1555C1H1R0BB01 | 40   |
| 11  | 0402/C0G/1.1pF/50V  | GJM1555C1H1R1BB01 | 40   |
| 12  | 0402/C0G/1.2pF/50V  | GJM1555C1H1R2BB01 | 40   |
| 13  | 0402/C0G/1.3pF/50V  | GJM1555C1H1R3BB01 | 40   |
| 14  | 0402/C0G/1.5pF/50V  | GJM1555C1H1R5BB01 | 40   |
| 15  | 0402/C0G/1.6pF/50V  | GJM1555C1H1R6BB01 | 40   |
| 16  | 0402/C0G/1.8pF/50V  | GJM1555C1H1R8BB01 | 40   |
| 17  | 0402/C0G/2.0pF/50V  | GJM1555C1H2R0BB01 | 40   |
| 18  | 0402/C0G/2.2pF/50V  | GJM1555C1H2R2BB01 | 40   |
| 19  | 0402/C0G/2.4pF/50V  | GJM1555C1H2R4BB01 | 40   |
| 20  | 0402/C0G/2.7pF/50V  | GJM1555C1H2R7BB01 | 40   |
| 21  | 0402/C0G/3.0pF/50V  | GJM1555C1H3R0BB01 | 40   |
| 22  | 0402/C0G/3.3pF/50V  | GJM1555C1H3R3BB01 | 40   |
| 23  | 0402/C0G/3.6pF/50V  | GJM1555C1H3R6BB01 | 40   |
| 24  | 0402/C0G/3.9pF/50V  | GJM1555C1H3R9BB01 | 40   |
| 25  | 0402/C0G/4.0pF/50V  | GJM1555C1H4R0BB01 | 40   |
| 26  | 0402/C0G/4.3pF/50V  | GJM1555C1H4R3BB01 | 40   |
| 27  | 0402/C0G/4.7pF/50V  | GJM1555C1H4R7BB01 | 40   |
| 28  | 0402/C0G/5.0pF/50V  | GJM1555C1H5R0BB01 | 40   |
| 29  | 0402/C0G/5.1pF/50V  | GJM1555C1H5R1CB01 | 40   |
| 30  | 0402/C0G/5.6pF/50V  | GJM1555C1H5R6CB01 | 40   |
| 31  | 0402/C0G/6.0pF/50V  | GJM1555C1H6R0CB01 | 40   |
| 32  | 0402/C0G/6.2pF/50V  | GJM1555C1H6R2CB01 | 40   |
| 33  | 0402/C0G/6.8pF/50V  | GJM1555C1H6R8CB01 | 40   |
| 34  | 0402/C0G/7.0pF/50V  | GJM1555C1H7R0CB01 | 40   |
| 35  | 0402/C0G/7.5pF/50V  | GJM1555C1H7R5CB01 | 40   |
| 36  | 0402/C0G/8.0pF/50V  | GJM1555C1H8R0CB01 | 40   |
| 37  | 0402/C0G/8.2pF/50V  | GJM1555C1H8R2CB01 | 40   |
| 38  | 0402/C0G/9.0pF/50V  | GJM1555C1H9R0CB01 | 40   |
| 39  | 0402/C0G/9.1pF/50V  | GJM1555C1H9R1CB01 | 40   |
| 40  | 0402/C0G/10pF/50V   | GJM1555C1H100GB01 | 40   |
| 41  | 0402/C0G/12pF/50V   | GJM1555C1H120GB01 | 40   |
| 42  | 0402/C0G/15pF/50V   | GJM1555C1H150GB01 | 40   |
| 43  | 0402/C0G/18pF/50V   | GJM1555C1H180GB01 | 40   |
| 44  | 0402/C0G/20pF/50V   | GJM1555C1H200GB01 | 40   |

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

DESIGN ENGINEERING KITS

# GENERAL CERAMIC CHIP CAPACITORS

## 0402 (6.3 to 50 VDC)

- Miniature chip size, 0402 (L:1.0 x W:0.5 x T:0.5mm).
- The GRM155 series is a complete line of chip ceramic capacitor in 6.3V, 10V, 16V, 25V and 50V.
- Temperature characteristics: C0G, U2J, X7R, X6S, X5R, Y5V
- No Polarity
- Nickel barrier with Tin layer termination.
- Suitable for reflow soldering.
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.
- Tape and reel packaging (10,000pcs/reel) and Bulk case packaging (50,000pcs/case) are available.

### GRM15-KIT-----E

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0402/C0G/0.50pF/50V | GRM1555C1HR50CZ01 | 40   |
| 2   | 0402/C0G/1.0pF/50V  | GRM1555C1H1R0CZ01 | 40   |
| 3   | 0402/C0G/1.2pF/50V  | GRM1555C1H1R2CZ01 | 40   |
| 4   | 0402/C0G/1.5pF/50V  | GRM1555C1H1R5CZ01 | 40   |
| 5   | 0402/C0G/1.8pF/50V  | GRM1555C1H1R8CZ01 | 40   |
| 6   | 0402/C0G/2.2pF/50V  | GRM1555C1H2R2CZ01 | 40   |
| 7   | 0402/C0G/2.7pF/50V  | GRM1555C1H2R7CZ01 | 40   |
| 8   | 0402/C0G/3.3pF/50V  | GRM1555C1H3R3CZ01 | 40   |
| 9   | 0402/C0G/3.9pF/50V  | GRM1555C1H3R9CZ01 | 40   |
| 10  | 0402/C0G/4.7pF/50V  | GRM1555C1H4R7CZ01 | 40   |
| 11  | 0402/C0G/5.6pF/50V  | GRM1555C1H5R6DZ01 | 40   |
| 12  | 0402/C0G/6.8pF/50V  | GRM1555C1H6R8DZ01 | 40   |
| 13  | 0402/C0G/8.2pF/50V  | GRM1555C1H8R2DZ01 | 40   |
| 14  | 0402/C0G/10pF/50V   | GRM1555C1H100JZ01 | 40   |
| 15  | 0402/C0G/12pF/50V   | GRM1555C1H120JZ01 | 40   |
| 16  | 0402/C0G/15pF/50V   | GRM1555C1H150JZ01 | 40   |
| 17  | 0402/C0G/18pF/50V   | GRM1555C1H180JZ01 | 40   |
| 18  | 0402/C0G/22pF/50V   | GRM1555C1H220JZ01 | 40   |
| 19  | 0402/C0G/27pF/50V   | GRM1555C1H270JZ01 | 40   |
| 20  | 0402/C0G/33pF/50V   | GRM1555C1H330JZ01 | 40   |
| 21  | 0402/C0G/39pF/50V   | GRM1555C1H390JZ01 | 40   |
| 22  | 0402/C0G/47pF/50V   | GRM1555C1H470JZ01 | 40   |
| 23  | 0402/C0G/56pF/50V   | GRM1555C1H560JZ01 | 40   |
| 24  | 0402/C0G/68pF/50V   | GRM1555C1H680JZ01 | 40   |
| 25  | 0402/C0G/82pF/50V   | GRM1555C1H820JZ01 | 40   |
| 26  | 0402/C0G/100pF/50V  | GRM1555C1H101JZ01 | 40   |
| 27  | 0402/C0G/120pF/50V  | GRM1555C1H121JA01 | 40   |
| 28  | 0402/C0G/150pF/50V  | GRM1555C1H151JA01 | 40   |
| 29  | 0402/C0G/180pF/50V  | GRM1555C1H181JA01 | 40   |
| 30  | 0402/C0G/220pF/50V  | GRM1555C1H221JA01 | 40   |
| 31  | 0402/C0G/270pF/50V  | GRM1555C1H271JA01 | 40   |
| 32  | 0402/C0G/330pF/50V  | GRM1555C1H331JA01 | 40   |
| 33  | 0402/C0G/390pF/50V  | GRM1555C1H391JA01 | 40   |
| 34  | 0402/C0G/470pF/50V  | GRM1555C1H471JA01 | 40   |
| 35  | 0402/C0G/560pF/50V  | GRM1555C1H561JA01 | 40   |
| 36  | 0402/C0G/680pF/50V  | GRM1555C1H681JA01 | 40   |
| 37  | 0402/C0G/820pF/50V  | GRM1555C1H821JA01 | 40   |
| 38  | 0402/C0G/1000pF/50V | GRM1555C1H102JA01 | 40   |
| 39  | 0402/X7R/220pF/50V  | GRM155R71H221KA01 | 40   |
| 40  | 0402/X7R/330pF/50V  | GRM155R71H331KA01 | 40   |
| 41  | 0402/X7R/470pF/50V  | GRM155R71H471KA01 | 40   |
| 42  | 0402/X7R/680pF/50V  | GRM155R71H681KA01 | 40   |
| 43  | 0402/X7R/1000pF/50V | GRM155R71H102KA01 | 40   |
| 44  | 0402/X7R/1500pF/50V | GRM155R71H152KA01 | 40   |
| 45  | 0402/X7R/2200pF/50V | GRM155R71H222KA01 | 40   |
| 46  | 0402/X7R/3300pF/50V | GRM155R71H332KA01 | 40   |
| 47  | 0402/X7R/4700pF/50V | GRM155R71H472KA01 | 40   |
| 48  | 0402/X7R/6800pF/25V | GRM155R71H682KA88 | 40   |

### GRM15-KIT-----E *continued*

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 49  | 0402/X7R/10000pF/50V | GRM155R71H103KA88 | 40   |
| 50  | 0402/X7R/15000pF/25V | GRM155R71E153KA61 | 40   |
| 51  | 0402/X7R/22000pF/25V | GRM155R71E223KA61 | 40   |
| 52  | 0402/X7R/33000pF/25V | GRM155R71E333KA88 | 40   |
| 53  | 0402/X7R/47000pF/25V | GRM155R71E473KA88 | 40   |
| 54  | 0402/X7R/68000pF/16V | GRM155R71C683KA88 | 40   |
| 55  | 0402/X7R/0.1uF/16V   | GRM155R71C104KA88 | 40   |
| 56  | 0402/X5R/0.22uF/10V  | GRM155R61A224KE19 | 40   |
| 57  | 0402/X5R/0.47uF/10V  | GRM155R61A474KE15 | 40   |
| 58  | 0402/X5R/1uF/10V     | GRM155R61A105KE15 | 40   |
| 59  | 0402/X5R/0.22uF/6.3V | GRM155R60J224KE01 | 40   |
| 60  | 0402/X5R/0.47uF/6.3V | GRM155R60J474KE19 | 40   |
| 61  | 0402/X5R/1uF/6.3V    | GRM155R60J105KE19 | 40   |
| 62  | 0402/X5R/2.2uF/4.0V  | GRM155R60G225ME15 | 40   |

**NOTE:** For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.



# GENERAL CERAMIC CHIP CAPACITORS

## 0603 (6.3 to 50 VDC)

- Miniature chip size, 0603 (L:1.6 x W:0.8 x T:0.8mm).
- The GRM188 series is a complete line of chip ceramic capacitor in 6.3V, 10V, 16V, 25V and 50V.
- Temperature characteristics: C0G, U2J, X7R, X6S, X5R, Y5V
- No Polarity
- Nickel barrier with Tin layer termination.
- Suitable for reflow soldering.
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.
- Tape and reel packaging (10,000pcs/reel) and Bulk case packaging (50,000pcs/case) are available.

### GRM18-KIT-----E

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0603/C0G/0.50pF/50V | GRM1885C1HR50BZ01 | 40   |
| 2   | 0603/C0G/1.0pF/50V  | GRM1885C1H1R0CZ01 | 40   |
| 3   | 0603/C0G/1.2pF/50V  | GRM1885C1H1R2CZ01 | 40   |
| 4   | 0603/C0G/1.5pF/50V  | GRM1885C1H1R5CZ01 | 40   |
| 5   | 0603/C0G/1.8pF/50V  | GRM1885C1H1R8CZ01 | 40   |
| 6   | 0603/C0G/2.2pF/50V  | GRM1885C1H2R2CZ01 | 40   |
| 7   | 0603/C0G/2.7pF/50V  | GRM1885C1H2R7CZ01 | 40   |
| 8   | 0603/C0G/3.3pF/50V  | GRM1885C1H3R3CZ01 | 40   |
| 9   | 0603/C0G/3.9pF/50V  | GRM1885C1H3R9CZ01 | 40   |
| 10  | 0603/C0G/4.7pF/50V  | GRM1885C1H4R7CZ01 | 40   |
| 11  | 0603/C0G/5.6pF/50V  | GRM1885C1H5R6DZ01 | 40   |
| 12  | 0603/C0G/6.8pF/50V  | GRM1885C1H6R8DZ01 | 40   |
| 13  | 0603/C0G/8.2pF/50V  | GRM1885C1H8R2DZ01 | 40   |
| 14  | 0603/C0G/10pF/50V   | GRM1885C1H100JA01 | 40   |
| 15  | 0603/C0G/12pF/50V   | GRM1885C1H120JA01 | 40   |
| 16  | 0603/C0G/15pF/50V   | GRM1885C1H150JA01 | 40   |
| 17  | 0603/C0G/18pF/50V   | GRM1885C1H180JA01 | 40   |
| 18  | 0603/C0G/22pF/50V   | GRM1885C1H220JA01 | 40   |
| 19  | 0603/C0G/27pF/50V   | GRM1885C1H270JA01 | 40   |
| 20  | 0603/C0G/33pF/50V   | GRM1885C1H330JA01 | 40   |
| 21  | 0603/C0G/39pF/50V   | GRM1885C1H390JA01 | 40   |
| 22  | 0603/C0G/47pF/50V   | GRM1885C1H470JA01 | 40   |
| 23  | 0603/C0G/56pF/50V   | GRM1885C1H560JA01 | 40   |
| 24  | 0603/C0G/68pF/50V   | GRM1885C1H680JA01 | 40   |
| 25  | 0603/C0G/82pF/50V   | GRM1885C1H820JA01 | 40   |
| 26  | 0603/C0G/100pF/50V  | GRM1885C1H101JA01 | 40   |
| 27  | 0603/C0G/120pF/50V  | GRM1885C1H121JA01 | 40   |
| 28  | 0603/C0G/150pF/50V  | GRM1885C1H151JA01 | 40   |
| 29  | 0603/C0G/180pF/50V  | GRM1885C1H181JA01 | 40   |
| 30  | 0603/C0G/220pF/50V  | GRM1885C1H221JA01 | 40   |
| 31  | 0603/C0G/270pF/50V  | GRM1885C1H271JA01 | 40   |
| 32  | 0603/C0G/330pF/50V  | GRM1885C1H331JA01 | 40   |
| 33  | 0603/C0G/390pF/50V  | GRM1885C1H391JA01 | 40   |
| 34  | 0603/C0G/470pF/50V  | GRM1885C1H471JA01 | 40   |
| 35  | 0603/C0G/560pF/50V  | GRM1885C1H561JA01 | 40   |
| 36  | 0603/C0G/680pF/50V  | GRM1885C1H681JA01 | 40   |
| 37  | 0603/C0G/820pF/50V  | GRM1885C1H821JA01 | 40   |
| 38  | 0603/C0G/1000pF/50V | GRM1885C1H102JA01 | 40   |
| 39  | 0603/C0G/1200pF/50V | GRM1885C1H122JA01 | 40   |
| 40  | 0603/C0G/1500pF/50V | GRM1885C1H152JA01 | 40   |
| 41  | 0603/C0G/1800pF/50V | GRM1885C1H182JA01 | 40   |
| 42  | 0603/C0G/2200pF/50V | GRM1885C1H222JA01 | 40   |
| 43  | 0603/C0G/2700pF/50V | GRM1885C1H272JA01 | 40   |
| 44  | 0603/X7R/1000pF/50V | GRM188R71H102KA01 | 40   |
| 45  | 0603/X7R/1500pF/50V | GRM188R71H152KA01 | 40   |
| 46  | 0603/X7R/2200pF/50V | GRM188R71H222KA01 | 40   |
| 47  | 0603/X7R/3300pF/50V | GRM188R71H332KA01 | 40   |
| 48  | 0603/X7R/4700pF/50V | GRM188R71H472KA01 | 40   |

### GRM18-KIT-----E *continued*

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 49  | 0603/X7R/6800pF/50V  | GRM188R71H682KA01 | 40   |
| 50  | 0603/X7R/10000pF/50V | GRM188R71H103KA01 | 40   |
| 51  | 0603/X7R/15000pF/50V | GRM188R71H153KA01 | 40   |
| 52  | 0603/X7R/22000pF/50V | GRM188R71H223KA01 | 40   |
| 53  | 0603/X7R/33000pF/50V | GRM188R71H333KA61 | 40   |
| 54  | 0603/X7R/47000pF/50V | GRM188R71H473KA61 | 40   |
| 55  | 0603/X7R/68000pF/50V | GRM188R71H683KA93 | 40   |
| 56  | 0603/X7R/0.1uF/50V   | GRM188R71H104KA93 | 40   |
| 57  | 0603/X7R/0.22uF/25V  | GRM188R71E224KA88 | 40   |
| 58  | 0603/X7R/0.47uF/16V  | GRM188R71C474KA88 | 40   |
| 59  | 0603/X5R/1uF/16V     | GRM188R61C105KA93 | 40   |
| 60  | 0603/X5R/1uF/10V     | GRM188R61A105KA61 | 40   |
| 61  | 0603/X5R/2.2uF/10V   | GRM188R61A225KE34 | 40   |
| 62  | 0603/X5R/4.7uF/6.3V  | GRM188R60J475KE19 | 40   |
| 63  | 0603/X5R/10uF/6.3V   | GRM188R60J106ME47 | 40   |

**NOTE:** For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

DESIGN ENGINEERING KITS

## GENERAL CERAMIC CHIP CAPACITORS

0402 – 1210 (6.3 to 50 VDC)

- TA chip capacitor replacement product lineup is available in X7R (X7S, X7T, X7U), X6S(X6T) and X5R temperature characteristics with a capacitance of 1uF and larger.
- The line of high volumetric capacitance ceramic chip capacitors is available in 6.3V, 10V, 16V, 25V and 50V.
- No Polarity
- GRM series is offered with a Ni barrier termination plated with Matte Tin, and is RoHS compliant.
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.

## GRM---KIT-HICAP--E

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0402/X5R/1uF/10V    | GRM155R61A105KE15 | 20   |
| 2   | 0402/X5R/1uF/6.3V   | GRM155R60J105KE19 | 20   |
| 3   | 0603/X5R/1uF/16V    | GRM185R61C105KE44 | 20   |
| 4   | 0603/X5R/1uF/16V    | GRM188R61E105KA12 | 20   |
| 5   | 0603/X5R/2.2uF/10V  | GRM188R61A225KE34 | 20   |
| 6   | 0603/X5R/2.2uF/16V  | GRM188R61C225KE15 | 20   |
| 7   | 0603/X5R/4.7uF/6.3V | GRM188R60J475KE19 | 20   |
| 8   | 0603/X5R/10uF/6.3V  | GRM188R60J106ME47 | 20   |
| 9   | 0805/X7R/1uF/25V    | GRM21BR71E105KA99 | 20   |
| 10  | 0805/X5R/1uF/25V    | GRM216R61E105KA12 | 20   |
| 11  | 0805/X7R/1uF/16V    | GRM21BR71C105KA01 | 20   |
| 12  | 0805/X5R/2.2uF/25V  | GRM219R61E225KA12 | 20   |
| 13  | 0805/X7R/2.2uF/10V  | GRM21BR71A225KA01 | 20   |
| 14  | 0805/X5R/4.7uF/25V  | GRM21BR61E475KA12 | 20   |
| 15  | 0805/X5R/4.7uF/16V  | GRM21BR61C475KA88 | 20   |
| 16  | 0805/X5R/4.7uF/10V  | GRM21BR61A475KA73 | 20   |
| 17  | 0805/X5R/10uF/10V   | GRM21BR61A106KE19 | 20   |
| 18  | 0805/X5R/10uF/16V   | GRM21BR61C106KE15 | 20   |
| 19  | 0805/X5R/10uF/6.3V  | GRM219R60J106KE19 | 20   |
| 20  | 0805/X5R/22uF/6.3V  | GRM21BR60J226ME39 | 20   |
| 21  | 1206/X7R/1uF/50V    | GRM31MR71H105KA88 | 20   |
| 22  | 1206/X7R/2.2uF/25V  | GRM31MR71E225KA93 | 20   |
| 23  | 1206/X7R/2.2uF/16V  | GRM31MR71C225KA35 | 20   |
| 24  | 1206/X5R/4.7uF/25V  | GRM319R61E475KA12 | 20   |
| 25  | 1206/X5R/10uF/25V   | GRM31CR61E106KA12 | 20   |
| 26  | 1206/X5R/10uF/10V   | GRM319R61A106KE19 | 20   |
| 27  | 1206/X5R/22uF/16V   | GRM31CR61C226ME15 | 20   |
| 28  | 1206/X5R/47uF/6.3V  | GRM31CR60J476ME19 | 20   |
| 29  | 1206/X5R/100uF/6.3V | GRM31CR60J107ME39 | 20   |
| 30  | 1210/X7R/4.7uF/50V  | GRM32ER71H475KA88 | 20   |
| 31  | 1210/X5R/22uF/25V   | GRM32ER61E226ME15 | 20   |
| 32  | 1210/X7R/22uF/10V   | GRM32ER71A226ME20 | 20   |
| 33  | 1210/X5R/47uF/16V   | GRM32ER61C476ME15 | 20   |
| 34  | 1210/X5R/100uF/6.3V | GRM32ER60J107ME20 | 20   |

**NOTE:** For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

## GENERAL CERAMIC CHIP CAPACITORS

0402 – 1210 (6.3 to 50 VDC)

- Low distortion and low shock noise make these capacitors well suited for replacing film chip capacitors.
- No Polarity
- GRM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- Stringent dimensional tolerances allow highly reliable, high-speed automatic chip placement on PCBs.
- Temperature characteristics: C0G, U2J and X7R

## GRM---KIT-TCHIK--E

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 0402/C0G/150pF/50V   | GRM1555C1H151JA01 | 20   |
| 2   | 0402/C0G/330pF/50V   | GRM1555C1H331JA01 | 20   |
| 3   | 0402/C0G/470pF/50V   | GRM1555C1H471JA01 | 20   |
| 4   | 0402/C0G/680pF/50V   | GRM1555C1H681JA01 | 20   |
| 5   | 0402/C0G/1000pF/50V  | GRM1555C1H102JA01 | 20   |
| 6   | 0603/C0G/1500pF/50V  | GRM1885C1H152JA01 | 20   |
| 7   | 0603/C0G/2200pF/50V  | GRM1885C1H222JA01 | 20   |
| 8   | 0603/C0G/3300pF/50V  | GRM1885C1H332JA01 | 20   |
| 9   | 0805/C0G/4700pF/50V  | GRM2165C1H472JA01 | 20   |
| 10  | 0805/C0G/6800pF/50V  | GRM2195C1H682JA01 | 20   |
| 11  | 0805/C0G/10000pF/50V | GRM2195C1H103JA01 | 20   |
| 12  | 0805/C0G/15000pF/50V | GRM2195C1H153JA01 | 20   |
| 13  | 0805/C0G/22000pF/50V | GRM21B5C1H223JA01 | 20   |
| 14  | 1206/C0G/33000pF/50V | GRM3195C1H333JA01 | 20   |
| 15  | 1206/C0G/47000pF/50V | GRM31M5C1H473JA01 | 20   |
| 16  | 1206/C0G/68000pF/50V | GRM31C5C1H683JA01 | 20   |
| 17  | 1206/C0G/0.1uF/50V   | GRM31C5C1H104JA01 | 20   |
| 18  | 0603/U2J/1000pF/50V  | GRM1887U1H102JA01 | 20   |
| 19  | 0603/U2J/2200pF/50V  | GRM1887U1H222JA01 | 20   |
| 20  | 0603/U2J/3300pF/50V  | GRM1887U1H332JA01 | 20   |
| 21  | 0603/U2J/4700pF/50V  | GRM1887U1H472JA01 | 20   |
| 22  | 0603/U2J/6800pF/50V  | GRM1887U1H682JA01 | 20   |
| 23  | 0603/U2J/10000pF/50V | GRM1887U1H103JA01 | 20   |
| 24  | 0805/U2J/15000pF/50V | GRM2167U1H153JA01 | 20   |
| 25  | 0805/U2J/22000pF/50V | GRM2197U1H223JA01 | 20   |
| 26  | 0805/U2J/33000pF/50V | GRM21A7U1H333JA39 | 20   |
| 27  | 0805/U2J/47000pF/50V | GRM21B7U1H473JA01 | 20   |
| 28  | 1206/U2J/68000pF/50V | GRM31M7U1H683JA01 | 20   |
| 29  | 1206/U2J/0.1uF/50V   | GRM31M7U1H104JA01 | 20   |
| 30  | 0805/X7R/0.1uF/50V   | GRM21BR71H104KA01 | 20   |
| 31  | 0805/X7R/0.15uF/25V  | GRM21BR71E154KA01 | 20   |
| 32  | 0805/X7R/0.22uF/25V  | GRM219B71E224KA01 | 20   |
| 33  | 0805/X7R/0.33uF/50V  | GRM219R71H334KA88 | 20   |
| 34  | 0805/X7R/0.47uF/50V  | GRM21BR71H474KA88 | 20   |
| 35  | 0805/X7R/1uF/25V     | GRM21BR71E105KA99 | 20   |
| 36  | 0603/X5R/1uF/16V     | GRM188R61C105KA93 | 20   |
| 37  | 0603/X5R/1uF/10V     | GRM185R61A105KE36 | 20   |
| 38  | 0603/X5R/2.2uF/10V   | GRM188R61A225KE34 | 20   |
| 39  | 0805/X5R/1uF/16V     | GRM216R61C105KA88 | 20   |
| 40  | 0805/X5R/4.7uF/16V   | GRM21BR61C475KA88 | 20   |
| 41  | 0805/X5R/10uF/10V    | GRM21BR61A106KE19 | 20   |
| 42  | 1206/X5R/2.2uF/16V   | GRM316R61C225KA88 | 20   |
| 43  | 1206/X5R/10uF/25V    | GRM31CR61E106KA12 | 20   |
| 44  | 1206/X5R/22uF/16V    | GRM31CR61C226ME15 | 20   |
| 45  | 1206/X5R/22uF/6.3V   | GRM31CR60J226ME19 | 20   |
| 46  | 1206/X5R/100uF/6.3V  | GRM31CR60J107ME39 | 20   |
| 47  | 1210/X5R/47uF/16V    | GRM32ER61C476ME15 | 20   |

**NOTE:** For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

# GENERAL CERAMIC CHIP CAPACITORS

0402 – 1206 (25 to 50 VDC)

- Low distortion and low shock noise make these capacitors well suited for replacing film chip capacitors.
- No Polarity
- GRM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- Stringent dimensional tolerances allow highly reliable, high-speed automatic chip placement on PCBs.
- Temperature characteristics: C0G, and U2J

## GRM---KIT-TC-----E

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 0402/C0G/120pF/50V   | GRM1555C1H121JA01 | 20   |
| 2   | 0402/C0G/150pF/50V   | GRM1555C1H151JA01 | 20   |
| 3   | 0402/C0G/180pF/50V   | GRM1555C1H181JA01 | 20   |
| 4   | 0402/C0G/220pF/50V   | GRM1555C1H221JA01 | 20   |
| 5   | 0402/C0G/270pF/50V   | GRM1555C1H271JA01 | 20   |
| 6   | 0402/C0G/330pF/50V   | GRM1555C1H331JA01 | 20   |
| 7   | 0402/C0G/390pF/50V   | GRM1555C1H391JA01 | 20   |
| 8   | 0402/C0G/470pF/50V   | GRM1555C1H471JA01 | 20   |
| 9   | 0402/C0G/560pF/50V   | GRM1555C1H561JA01 | 20   |
| 10  | 0402/C0G/680pF/50V   | GRM1555C1H681JA01 | 20   |
| 11  | 0402/C0G/820pF/50V   | GRM1555C1H821JA01 | 20   |
| 12  | 0402/C0G/1000pF/50V  | GRM1555C1H102JA01 | 20   |
| 13  | 0603/C0G/1200pF/50V  | GRM1885C1H122JA01 | 20   |
| 14  | 0603/C0G/1500pF/50V  | GRM1885C1H152JA01 | 20   |
| 15  | 0603/C0G/1800pF/50V  | GRM1885C1H182JA01 | 20   |
| 16  | 0603/C0G/2200pF/50V  | GRM1885C1H222JA01 | 20   |
| 17  | 0603/C0G/2700pF/50V  | GRM1885C1H272JA01 | 20   |
| 18  | 0603/C0G/3300pF/50V  | GRM1885C1H332JA01 | 20   |
| 19  | 0603/C0G/3900pF/50V  | GRM1885C1H392JA01 | 20   |
| 20  | 0805/C0G/4700pF/50V  | GRM2165C1H472JA01 | 20   |
| 21  | 0805/C0G/5600pF/50V  | GRM2195C1H562JA01 | 20   |
| 22  | 0805/C0G/6800pF/50V  | GRM2195C1H682JA01 | 20   |
| 23  | 0805/C0G/8200pF/50V  | GRM2195C1H822JA01 | 20   |
| 24  | 0805/C0G/10000pF/50V | GRM2195C1H103JA01 | 20   |
| 25  | 0805/C0G/12000pF/50V | GRM2195C1H123JA01 | 20   |
| 26  | 0805/C0G/15000pF/50V | GRM2195C1H153JA01 | 20   |
| 27  | 0805/C0G/18000pF/50V | GRM21B5C1H183JA01 | 20   |
| 28  | 0805/C0G/22000pF/50V | GRM21B5C1H223JA01 | 20   |
| 29  | 1206/C0G/27000pF/50V | GRM3195C1H273JA01 | 20   |
| 30  | 1206/C0G/33000pF/50V | GRM3195C1H333JA01 | 20   |
| 31  | 1206/C0G/39000pF/50V | GRM31M5C1H393JA01 | 20   |
| 32  | 1206/C0G/47000pF/50V | GRM31C5C1H473JA01 | 20   |
| 33  | 1206/C0G/68000pF/50V | GRM31C5C1H683JA01 | 20   |
| 34  | 1206/C0G/82000pF/50V | GRM31C5C1H823JA01 | 20   |
| 35  | 1206/C0G/0.1uF/50V   | GRM31C5C1H104JA01 | 20   |
| 36  | 0603/U2J/1000pF/50V  | GRM1887U1H102JA01 | 20   |
| 37  | 0603/U2J/1200pF/50V  | GRM1887U1H122JA01 | 20   |
| 38  | 0603/U2J/1500pF/50V  | GRM1887U1H152JA01 | 20   |
| 39  | 0603/U2J/1800pF/50V  | GRM1887U1H182JA01 | 20   |
| 40  | 0603/U2J/2200pF/50V  | GRM1887U1H222JA01 | 20   |
| 41  | 0603/U2J/2700pF/50V  | GRM1887U1H272JA01 | 20   |
| 42  | 0603/U2J/3300pF/50V  | GRM1887U1H332JA01 | 20   |
| 43  | 0603/U2J/3900pF/50V  | GRM1887U1H392JA01 | 20   |
| 44  | 0603/U2J/4700pF/50V  | GRM1887U1H472JA01 | 20   |
| 45  | 0603/U2J/5600pF/50V  | GRM1887U1H562JA01 | 20   |
| 46  | 0603/U2J/6800pF/50V  | GRM1887U1H682JA01 | 20   |
| 47  | 0603/U2J/8200pF/50V  | GRM1887U1H822JA01 | 20   |

## GRM---KIT-TC-----E *continued*

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 48  | 0603/U2J/10000pF/50V | GRM1887U1H103JA01 | 20   |
| 49  | 0805/U2J/12000pF/50V | GRM2167U1H123JA01 | 20   |
| 50  | 0805/U2J/15000pF/50V | GRM2167U1H153JA01 | 20   |
| 51  | 0805/U2J/18000pF/50V | GRM2167U1H183JA01 | 20   |
| 52  | 0805/U2J/22000pF/50V | GRM2197U1H223JA01 | 20   |
| 53  | 0805/U2J/27000pF/50V | GRM2197U1H273JA01 | 20   |
| 54  | 0805/U2J/33000pF/50V | GRM21A7U1H333JA39 | 20   |
| 55  | 0805/U2J/39000pF/50V | GRM21B7U1H393JA01 | 20   |
| 56  | 0805/U2J/47000pF/50V | GRM21B7U1H473JA01 | 20   |
| 57  | 1206/U2J/56000pF/50V | GRM3197U1H563JA01 | 20   |
| 58  | 1206/U2J/68000pF/50V | GRM31M7U1H683JA01 | 20   |
| 59  | 1206/U2J/82000pF/50V | GRM31M7U1H823JA01 | 20   |
| 60  | 1206/U2J/0.1uF/50V   | GRM31M7U1H104JA01 | 20   |

**NOTE:** For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

# CERAMIC CHIP CAPACITORS

## ASCAP Hi-Frequency

### 0603 (50 to 100 VDC)

- High Q and Low ESR at VHF, UHF, and Microwave Frequencies
- 0603 and 0805 sizes with Copper Inner Electrode
- Tight Tolerance Available ([W]=+/-0.05pF for <=5pF, [C]=+/-0.25pF for 5 - 9pF, [F]=+/-1% for 10 - 20pF)
- Low Power Consumption for Mobile Telecommunication
- Base Stations, Broadcast Satellite and Special Radios

### 0603 (250 VDC)

- High Q and Low ESR at VHF, UHF, and Microwave Frequencies
- 0603 size with Copper Inner Electrode
- Tight Tolerance Available ([W]=+/-0.05pF for <=5pF, [F]=+/-1% for 10 - 20pF)
- Low Power Consumption for Mobile Telecommunication
- Base Stations, Broadcast Satellite and Special Radios

#### GQM18-HIQ0603KIT-E

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 0603/C0G/0.50pF/100V | GQM1885C2AR50CB01 | 20   |
| 2   | 0603/C0G/0.60pF/100V | GQM1885C2AR60CB01 | 20   |
| 3   | 0603/C0G/0.70pF/100V | GQM1885C2AR70CB01 | 20   |
| 4   | 0603/C0G/0.80pF/100V | GQM1885C2AR80CB01 | 20   |
| 5   | 0603/C0G/0.90pF/100V | GQM1885C2AR90CB01 | 20   |
| 6   | 0603/C0G/1.0pF/100V  | GQM1885C2A1R0CB01 | 20   |
| 7   | 0603/C0G/1.1pF/100V  | GQM1885C2A1R1CB01 | 20   |
| 8   | 0603/C0G/1.2pF/100V  | GQM1885C2A1R2CB01 | 20   |
| 9   | 0603/C0G/1.3pF/100V  | GQM1885C2A1R3CB01 | 20   |
| 10  | 0603/C0G/1.5pF/100V  | GQM1885C2A1R5CB01 | 20   |
| 11  | 0603/C0G/1.6pF/100V  | GQM1885C2A1R6CB01 | 20   |
| 12  | 0603/C0G/1.8pF/100V  | GQM1885C2A1R8CB01 | 20   |
| 13  | 0603/C0G/2.0pF/100V  | GQM1885C2A2R0CB01 | 20   |
| 14  | 0603/C0G/2.2pF/100V  | GQM1885C2A2R2CB01 | 20   |
| 15  | 0603/C0G/2.4pF/100V  | GQM1885C2A2R4CB01 | 20   |
| 16  | 0603/C0G/2.7pF/100V  | GQM1885C2A2R7CB01 | 20   |
| 17  | 0603/C0G/3.0pF/100V  | GQM1885C2A3R0CB01 | 20   |
| 18  | 0603/C0G/3.3pF/100V  | GQM1885C2A3R3CB01 | 20   |
| 19  | 0603/C0G/3.6pF/100V  | GQM1885C2A3R6CB01 | 20   |
| 20  | 0603/C0G/3.9pF/100V  | GQM1885C2A3R9CB01 | 20   |
| 21  | 0603/C0G/4.3pF/100V  | GQM1885C2A4R3CB01 | 20   |
| 22  | 0603/C0G/4.7pF/100V  | GQM1885C2A4R7CB01 | 20   |
| 23  | 0603/C0G/5.1pF/100V  | GQM1885C2A5R1DB01 | 20   |
| 24  | 0603/C0G/5.6pF/100V  | GQM1885C2A5R6DB01 | 20   |
| 25  | 0603/C0G/6.2pF/100V  | GQM1885C2A6R2DB01 | 20   |
| 26  | 0603/C0G/6.8pF/100V  | GQM1885C2A6R8DB01 | 20   |
| 27  | 0603/C0G/7.5pF/50V   | GQM1885C1H7R5DB01 | 20   |
| 28  | 0603/C0G/8.2pF/50V   | GQM1885C1H8R2DB01 | 20   |
| 29  | 0603/C0G/9.1pF/50V   | GQM1885C1H9R1DB01 | 20   |
| 30  | 0603/C0G/10pF/50V    | GQM1885C1H100JB01 | 20   |
| 31  | 0603/C0G/12pF/50V    | GQM1885C1H120JB01 | 20   |
| 32  | 0603/C0G/15pF/50V    | GQM1885C1H150JB01 | 20   |
| 33  | 0603/C0G/18pF/50V    | GQM1885C1H180JB01 | 20   |
| 34  | 0603/C0G/22pF/50V    | GQM1885C1H220JB01 | 20   |
| 35  | 0603/C0G/27pF/50V    | GQM1885C1H270JB01 | 20   |
| 36  | 0603/C0G/33pF/50V    | GQM1885C1H330JB01 | 20   |
| 37  | 0603/C0G/39pF/50V    | GQM1885C1H390JB01 | 20   |
| 38  | 0603/C0G/47pF/50V    | GQM1885C1H470JB01 | 20   |
| 39  | 0603/C0G/68pF/50V    | GQM1885C1H680JB01 | 20   |
| 40  | 0603/C0G/100pF/50V   | GQM1885C1H101JB01 | 20   |

#### GQM18-HIQ250VKIT-E

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 0603/C0G/0.10pF/250V | GQM1875C2ER10BB12 | 20   |
| 2   | 0603/C0G/0.30pF/250V | GQM1875C2ER30BB12 | 20   |
| 3   | 0603/C0G/0.50pF/250V | GQM1875C2ER50BB12 | 20   |
| 4   | 0603/C0G/0.60pF/250V | GQM1875C2ER60BB12 | 20   |
| 5   | 0603/C0G/0.70pF/250V | GQM1875C2ER70BB12 | 20   |
| 6   | 0603/C0G/0.80pF/250V | GQM1875C2ER80BB12 | 20   |
| 7   | 0603/C0G/0.90pF/250V | GQM1875C2ER90BB12 | 20   |
| 8   | 0603/C0G/1.0pF/250V  | GQM1875C2E1R0BB12 | 20   |
| 9   | 0603/C0G/1.1pF/250V  | GQM1875C2E1R1BB12 | 20   |
| 10  | 0603/C0G/1.2pF/250V  | GQM1875C2E1R2BB12 | 20   |
| 11  | 0603/C0G/1.3pF/250V  | GQM1875C2E1R3BB12 | 20   |
| 12  | 0603/C0G/1.6pF/250V  | GQM1875C2E1R6BB12 | 20   |
| 13  | 0603/C0G/1.8pF/250V  | GQM1875C2E1R8BB12 | 20   |
| 14  | 0603/C0G/2.2pF/250V  | GQM1875C2E2R2BB12 | 20   |
| 15  | 0603/C0G/2.4pF/250V  | GQM1875C2E2R4BB12 | 20   |
| 16  | 0603/C0G/3.0pF/250V  | GQM1875C2E3R0BB12 | 20   |
| 17  | 0603/C0G/3.3pF/250V  | GQM1875C2E3R3BB12 | 20   |
| 18  | 0603/C0G/3.6pF/250V  | GQM1875C2E3R6BB12 | 20   |
| 19  | 0603/C0G/3.9pF/250V  | GQM1875C2E3R9BB12 | 20   |
| 20  | 0603/C0G/4.3pF/250V  | GQM1875C2E4R3BB12 | 20   |
| 21  | 0603/C0G/4.7pF/250V  | GQM1875C2E4R7BB12 | 20   |
| 22  | 0603/C0G/5.1pF/250V  | GQM1875C2E5R1BB12 | 20   |
| 23  | 0603/C0G/5.6pF/250V  | GQM1875C2E5R6BB12 | 20   |
| 24  | 0603/C0G/6.2pF/250V  | GQM1875C2E6R2BB12 | 20   |
| 25  | 0603/C0G/6.8pF/250V  | GQM1875C2E6R8BB12 | 20   |
| 26  | 0603/C0G/7.5pF/250V  | GQM1875C2E7R5BB12 | 20   |
| 27  | 0603/C0G/9.1pF/250V  | GQM1875C2E9R1BB12 | 20   |
| 28  | 0603/C0G/10pF/250V   | GQM1875C2E100JB12 | 20   |
| 29  | 0603/C0G/12pF/250V   | GQM1875C2E120JB12 | 20   |
| 30  | 0603/C0G/15pF/250V   | GQM1875C2E150JB12 | 20   |
| 31  | 0603/C0G/22pF/250V   | GQM1875C2E220JB12 | 20   |
| 32  | 0603/C0G/27pF/250V   | GQM1875C2E270JB12 | 20   |
| 33  | 0603/C0G/33pF/250V   | GQM1875C2E330JB12 | 20   |
| 34  | 0603/C0G/39pF/250V   | GQM1875C2E390JB12 | 20   |
| 35  | 0603/C0G/47pF/250V   | GQM1875C2E470JB12 | 20   |

DESIGN ENGINEERING KITS

## CERAMIC CHIP CAPACITORS

## ASCAP Hi-Frequency

## 0805 (50 to 100 VDC)

- High Q and Low ESR at VHF, UHF, and Microwave Frequencies
- 0603 and 0805 sizes with Copper Inner Electrode
- Tight Tolerance Available ([W]=+/-0.05pF for <=5pF, [C]=+/-0.25pF for 5 - 9pF, [F]=+/-1% for 10 - 20pF)
- Low Power Consumption for Mobile Telecommunication
- Base Stations, Broadcast Satellite and Special Radios

## GQM21-HIQ0805KIT-E

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 0805/C0G/0.50pF/100V | GQM2195C2AR50CB01 | 20   |
| 2   | 0805/C0G/0.60pF/100V | GQM2195C2AR60CB01 | 20   |
| 3   | 0805/C0G/0.70pF/100V | GQM2195C2AR70CB01 | 20   |
| 4   | 0805/C0G/0.80pF/100V | GQM2195C2AR80CB01 | 20   |
| 5   | 0805/C0G/0.90pF/100V | GQM2195C2AR90CB01 | 20   |
| 6   | 0805/C0G/1.0pF/100V  | GQM2195C2A1R0CB01 | 20   |
| 7   | 0805/C0G/1.1pF/100V  | GQM2195C2A1R1CB01 | 20   |
| 8   | 0805/C0G/1.2pF/100V  | GQM2195C2A1R2CB01 | 20   |
| 9   | 0805/C0G/1.3pF/100V  | GQM2195C2A1R3CB01 | 20   |
| 10  | 0805/C0G/1.5pF/100V  | GQM2195C2A1R5CB01 | 20   |
| 11  | 0805/C0G/1.6pF/100V  | GQM2195C2A1R6CB01 | 20   |
| 12  | 0805/C0G/1.8pF/100V  | GQM2195C2A1R8CB01 | 20   |
| 13  | 0805/C0G/2.0pF/100V  | GQM2195C2A2R0CB01 | 20   |
| 14  | 0805/C0G/2.2pF/100V  | GQM2195C2A2R2CB01 | 20   |
| 15  | 0805/C0G/2.4pF/100V  | GQM2195C2A2R4CB01 | 20   |
| 16  | 0805/C0G/2.7pF/100V  | GQM2195C2A2R7CB01 | 20   |
| 17  | 0805/C0G/3.0pF/100V  | GQM2195C2A3R0CB01 | 20   |
| 18  | 0805/C0G/3.3pF/100V  | GQM2195C2A3R3CB01 | 20   |
| 19  | 0805/C0G/3.6pF/100V  | GQM2195C2A3R6CB01 | 20   |
| 20  | 0805/C0G/3.9pF/100V  | GQM2195C2A3R9CB01 | 20   |
| 21  | 0805/C0G/4.3pF/100V  | GQM2195C2A4R3CB01 | 20   |
| 22  | 0805/C0G/4.7pF/100V  | GQM2195C2A4R7CB01 | 20   |
| 23  | 0805/C0G/5.1pF/100V  | GQM2195C2A5R1DB01 | 20   |
| 24  | 0805/C0G/5.6pF/100V  | GQM2195C2A5R6DB01 | 20   |
| 25  | 0805/C0G/6.2pF/100V  | GQM2195C2A6R2DB01 | 20   |
| 26  | 0805/C0G/6.8pF/100V  | GQM2195C2A6R8DB01 | 20   |
| 27  | 0805/C0G/7.5pF/100V  | GQM2195C2A7R5DB01 | 20   |
| 28  | 0805/C0G/8.2pF/100V  | GQM2195C2A8R2DB01 | 20   |
| 29  | 0805/C0G/9.1pF/100V  | GQM2195C2A9R1DB01 | 20   |
| 30  | 0805/C0G/10pF/100V   | GQM2195C2A100JB01 | 20   |
| 31  | 0805/C0G/12pF/100V   | GQM2195C2A120JB01 | 20   |
| 32  | 0805/C0G/15pF/100V   | GQM2195C2A150JB01 | 20   |
| 33  | 0805/C0G/18pF/100V   | GQM2195C2A180JB01 | 20   |
| 34  | 0805/C0G/22pF/50V    | GQM2195C1H220JB01 | 20   |
| 35  | 0805/C0G/27pF/50V    | GQM2195C1H270JB01 | 20   |
| 36  | 0805/C0G/33pF/50V    | GQM2195C1H330JB01 | 20   |
| 37  | 0805/C0G/39pF/50V    | GQM2195C1H390JB01 | 20   |
| 38  | 0805/C0G/47pF/50V    | GQM2195C1H470JB01 | 20   |
| 39  | 0805/C0G/68pF/50V    | GQM2195C1H680JB01 | 20   |
| 40  | 0805/C0G/100pF/50V   | GQM2195C1H101JB01 | 20   |

# CERAMIC CHIP CAPACITORS

## ASCAP Hi-Frequency

- Miniature sizes & stable COG temperature coefficient
- Very high Q at high frequencies
- 0603, 0805 and 1210 sizes
- Low Power Consumption for Mobile Telecommunication
- Base Station, Terminal applications, Wireless equipment and High frequency radio

- Miniature sizes & stable COG temperature coefficient
- Very high Q at high frequencies
- 0603, 0805 and 1210 sizes
- Low Power Consumption for Mobile Telecommunication
- Base Station, Terminal applications, Wireless equipment and High frequency radio

### ERB18-HIQ0603KIT-E 0603 - (250 VDC)

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0603/COG/1.0pF/250V | ERB1885C2E1R0BDX1 | 10   |
| 2   | 0603/COG/1.1pF/250V | ERB1885C2E1R1BDX1 | 10   |
| 3   | 0603/COG/1.2pF/250V | ERB1885C2E1R2BDX1 | 10   |
| 4   | 0603/COG/1.3pF/250V | ERB1885C2E1R3BDX1 | 10   |
| 5   | 0603/COG/1.5pF/250V | ERB1885C2E1R5BDX1 | 10   |
| 6   | 0603/COG/1.6pF/250V | ERB1885C2E1R6BDX1 | 10   |
| 7   | 0603/COG/1.8pF/250V | ERB1885C2E1R8BDX1 | 10   |
| 8   | 0603/COG/2.0pF/250V | ERB1885C2E2R0BDX1 | 10   |
| 9   | 0603/COG/2.4pF/250V | ERB1885C2E2R4BDX1 | 10   |
| 10  | 0603/COG/2.7pF/250V | ERB1885C2E2R7BDX1 | 10   |
| 11  | 0603/COG/3.0pF/250V | ERB1885C2E3R0CDX1 | 10   |
| 12  | 0603/COG/3.3pF/250V | ERB1885C2E3R3CDX1 | 10   |
| 13  | 0603/COG/3.6pF/250V | ERB1885C2E3R6CDX1 | 10   |
| 14  | 0603/COG/3.9pF/250V | ERB1885C2E3R9CDX1 | 10   |
| 15  | 0603/COG/4.3pF/250V | ERB1885C2E4R3CDX1 | 10   |
| 16  | 0603/COG/4.7pF/250V | ERB1885C2E4R7CDX1 | 10   |
| 17  | 0603/COG/5.1pF/250V | ERB1885C2E5R1CDX1 | 10   |
| 18  | 0603/COG/5.6pF/250V | ERB1885C2E5R6CDX1 | 10   |
| 19  | 0603/COG/6.2pF/250V | ERB1885C2E6R2CDX1 | 10   |
| 20  | 0603/COG/6.8pF/250V | ERB1885C2E6R8CDX1 | 10   |
| 21  | 0603/COG/7.5pF/250V | ERB1885C2E7R5CDX5 | 10   |
| 22  | 0603/COG/8.2pF/250V | ERB1885C2E8R2CDX5 | 10   |
| 23  | 0603/COG/9.1pF/250V | ERB1885C2E9R1CDX5 | 10   |
| 24  | 0603/COG/10pF/250V  | ERB1885C2E100JDX5 | 10   |
| 25  | 0603/COG/12pF/250V  | ERB1885C2E120JDX5 | 10   |
| 26  | 0603/COG/15pF/250V  | ERB1885C2E150JDX5 | 10   |
| 27  | 0603/COG/18pF/250V  | ERB1885C2E180JDX5 | 10   |
| 28  | 0603/COG/22pF/250V  | ERB1885C2E220JDX5 | 10   |
| 29  | 0603/COG/27pF/250V  | ERB1885C2E270JDX5 | 10   |
| 30  | 0603/COG/33pF/250V  | ERB1885C2E330JDX5 | 10   |
| 31  | 0603/COG/39pF/250V  | ERB1885C2E390JDX5 | 10   |
| 32  | 0603/COG/47pF/250V  | ERB1885C2E470JDX5 | 10   |
| 33  | 0603/COG/56pF/250V  | ERB1885C2E560JDX5 | 10   |
| 34  | 0603/COG/68pF/250V  | ERB1885C2E680JDX5 | 10   |
| 35  | 0603/COG/82pF/250V  | ERB1885C2E820JDX5 | 10   |
| 36  | 0603/COG/100pF/250V | ERB1885C2E101JDX5 | 10   |

### ERB21-HIQ0805KIT-E 0805 - (250VDC)

| No. | Description         | Murata Global P/N  | Qty. |
|-----|---------------------|--------------------|------|
| 1   | 0805/COG/1.2pF/250V | ERB21 B5C2E1R2CDX1 | 10   |
| 2   | 0805/COG/1.5pF/250V | ERB21 B5C2E1R5CDX1 | 10   |
| 3   | 0805/COG/1.8pF/250V | ERB21 B5C2E1R8CDX1 | 10   |
| 4   | 0805/COG/2.2pF/250V | ERB21B5C2E2R2CDX1  | 10   |
| 5   | 0805/COG/2.7pF/250V | ERB21B5C2E2R7CDX1  | 10   |
| 6   | 0805/COG/3.3pF/250V | ERB21B5C2E3R3CDX1  | 10   |
| 7   | 0805/COG/3.9pF/250V | ERB21B5C2E3R9CDX1  | 10   |
| 8   | 0805/COG/4.7pF/250V | ERB21B5C2E4R7CDX1  | 10   |
| 9   | 0805/COG/5.6pF/250V | ERB21B5C2E5R6DDX1  | 10   |
| 10  | 0805/COG/6.8pF/250V | ERB21B5C2E6R8DDX1  | 10   |
| 11  | 0805/COG/8.2pF/250V | ERB82185C2E8R2DDX1 | 10   |
| 12  | 0805/COG/10pF/250V  | ERB21B5C2E100JDX1  | 10   |
| 13  | 0805/COG/12pF/250V  | ERB21B5C2E120JDX1  | 10   |
| 14  | 0805/COG/15pF/250V  | ERB21B5C2E150JDX1  | 10   |
| 15  | 0805/COG/18pF/250V  | ERB21B5C2E180JDX1  | 10   |
| 16  | 0805/COG/22pF/250V  | ERB21B5C2E220JDX1  | 10   |
| 17  | 0805/COG/27pF/250V  | ERB21B5C2E270JDX1  | 10   |
| 18  | 0805/COG/33pF/250V  | ERB21B5C2E330JDX1  | 10   |
| 19  | 0805/COG/39pF/250V  | ERB21B5C2E390JDX1  | 10   |
| 20  | 0805/COG/47pF/250V  | ERB21B5C2E470JDX1  | 10   |
| 21  | 0805/COG/56pF/250V  | ERB21B5C2E560JDX1  | 10   |
| 22  | 0805/COG/68pF/250V  | ERB21B5C2E680JDX1  | 10   |
| 23  | 0805/COG/82pF/250V  | ERB21B5C2E820JDX1  | 10   |
| 24  | 0805/COG/100pF/250V | ERB21B5C2E101JDX1  | 10   |

### ERB32-HIQ1210KIT-E 1210 - (500VDC)

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 1210/COG/3.3pF/500V | ERB32Q5C2H3R3CDX1 | 10   |
| 2   | 1210/COG/3.9pF/500V | ERB32Q5C2H3R9CDX1 | 10   |
| 3   | 1210/COG/4.7pF/500V | ERB32Q5C2H4R7CDX1 | 10   |
| 4   | 1210/COG/5.6pF/500V | ERB32Q5C2H5R6DDX1 | 10   |
| 5   | 1210/COG/6.8pF/500V | ERB32Q5C2H6R8DDX1 | 10   |
| 6   | 1210/COG/8.2pF/500V | ERB32Q5C2H8R2DDX1 | 10   |
| 7   | 1210/COG/10pF/500V  | ERB32Q5C2H100JDX1 | 10   |
| 8   | 1210/COG/12pF/500V  | ERB32Q5C2H120JDX1 | 10   |
| 9   | 1210/COG/15pF/500V  | ERB32Q5C2H150JDX1 | 10   |
| 10  | 1210/COG/18pF/500V  | ERB32Q5C2H180JDX1 | 10   |
| 11  | 1210/COG/22pF/500V  | ERB32Q5C2H220JDX1 | 10   |
| 12  | 1210/COG/27pF/500V  | ERB32Q5C2H270JDX1 | 10   |
| 13  | 1210/COG/33pF/500V  | ERB32Q5C2H330JDX1 | 10   |
| 14  | 1210/COG/39pF/500V  | ERB32Q5C2H390JDX1 | 10   |
| 15  | 1210/COG/47pF/500V  | ERB32Q5C2H470JDX1 | 10   |
| 16  | 1210/COG/56pF/500V  | ERB32Q5C2H560JDX1 | 10   |
| 17  | 1210/COG/68pF/500V  | ERB32Q5C2H680JDX1 | 10   |
| 18  | 1210/COG/82pF/500V  | ERB32Q5C2H820JDX1 | 10   |
| 19  | 1210/COG/100pF/500V | ERB32Q5C2H101JDX1 | 10   |

DESIGN ENGINEERING KITS

## CERAMIC CHIP CAPACITORS

### ASCAP Hi-Frequency 0505 (150 VDC)

- Miniature sizes (0505 and 1111)
- Very high Q at high frequency
- High RF power capabilities
- Impervious to environmental conditions
- Low noise
- Base stations and RF power supplies

#### MA19-HIQ0505KIT- E-

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 0505/P090/0.3pF/150V | MA190R3BAB        | 5    |
| 2   | 0505/P090/0.5pF/150V | MA190R5BAB        | 5    |
| 3   | 0505/P090/0.7pF/150V | MA190R7BAB        | 5    |
| 4   | 0505/P090/1.0pF/150V | MA191R0BAB        | 5    |
| 5   | 0505/P090/1.2pF/150V | MA191R2CAB        | 5    |
| 6   | 0505/P090/1.5pF/150V | MA191R5CAB        | 5    |
| 7   | 0505/P090/1.8pF/150V | MA191R8CAB        | 5    |
| 8   | 0505/P090/2.2pF/150V | MA192R2CAB        | 5    |
| 9   | 0505/P090/2.7pF/150V | MA192R7CAB        | 5    |
| 10  | 0505/P090/3.3pF/150V | MA193R3CAB        | 5    |
| 11  | 0505/P090/3.9pF/150V | MA193R9CAB        | 5    |
| 12  | 0505/P090/4.7pF/150V | MA194R7CAB        | 5    |
| 13  | 0505/P090/5.6pF/150V | MA195R6DAB        | 5    |
| 14  | 0505/P090/6.8pF/150V | MA196R8DAB        | 5    |
| 15  | 0505/P090/8.2pF/150V | MA198R2DAB        | 5    |
| 16  | 0505/P090/10pF/150V  | MA19100JAB        | 5    |
| 17  | 0505/P090/12pF/150V  | MA19120JAB        | 5    |
| 18  | 0505/P090/15pF/150V  | MA19150JAB        | 5    |
| 19  | 0505/P090/18pF/150V  | MA19180JAB        | 5    |
| 20  | 0505/P090/22pF/150V  | MA19220JAB        | 5    |
| 21  | 0505/P090/27pF/150V  | MA19270JAB        | 5    |
| 22  | 0505/P090/33pF/150V  | MA19330JAB        | 5    |
| 23  | 0505/P090/39pF/150V  | MA19390JAB        | 5    |
| 24  | 0505/P090/47pF/150V  | MA19470JAB        | 5    |
| 25  | 0505/P090/56pF/150V  | MA19560JAB        | 5    |
| 26  | 0505/P090/68pF/150V  | MA19680JAB        | 5    |
| 27  | 0505/P090/82pF/150V  | MA19820JAB        | 5    |

### 1111 (50 to 500 VDC)

- Miniature sizes (0505 and 1111)
- Very high Q at high frequency
- High RF power capabilities
- Impervious to environmental conditions
- Low noise
- Base stations and RF power supplies

#### MA29-HIQ1111KIT- E-

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 1111/P090/0.3pF/500V | MA290R3BAB        | 5    |
| 2   | 1111/P090/0.5pF/500V | MA290R5BAB        | 5    |
| 3   | 1111/P090/0.7pF/500V | MA290R7BAB        | 5    |
| 4   | 1111/P090/1.0pF/500V | MA291R0BAB        | 5    |
| 5   | 1111/P090/1.2pF/500V | MA291R2CAB        | 5    |
| 6   | 1111/P090/1.5pF/500V | MA291R5CAB        | 5    |
| 7   | 1111/P090/1.8pF/500V | MA291R8CAB        | 5    |
| 8   | 1111/P090/2.2pF/500V | MA292R2CAB        | 5    |
| 9   | 1111/P090/2.7pF/500V | MA292R7CAB        | 5    |
| 10  | 1111/P090/3.3pF/500V | MA293R3CAB        | 5    |
| 11  | 1111/P090/3.9pF/500V | MA293R9CAB        | 5    |
| 12  | 1111/P090/4.7pF/500V | MA294R7CAB        | 5    |
| 13  | 1111/P090/5.6pF/500V | MA295R6DAB        | 5    |
| 14  | 1111/P090/6.8pF/500V | MA296R8DAB        | 5    |
| 15  | 1111/P090/8.2pF/500V | MA298R2DAB        | 5    |
| 16  | 1111/P090/10pF/500V  | MA29100JAB        | 5    |
| 17  | 1111/P090/12pF/500V  | MA29120JAB        | 5    |
| 18  | 1111/P090/15pF/500V  | MA29150JAB        | 5    |
| 19  | 1111/P090/18pF/500V  | MA29180JAB        | 5    |
| 20  | 1111/P090/22pF/500V  | MA29220JAB        | 5    |
| 21  | 1111/P090/27pF/500V  | MA29270JAB        | 5    |
| 22  | 1111/P090/33pF/500V  | MA29330JAB        | 5    |
| 23  | 1111/P090/39pF/500V  | MA29390JAB        | 5    |
| 24  | 1111/P090/47pF/500V  | MA29470JAB        | 5    |
| 25  | 1111/P090/56pF/500V  | MA29560JAB        | 5    |
| 26  | 1111/P090/68pF/500V  | MA29680JAB        | 5    |
| 27  | 1111/P090/82pF/500V  | MA29820JAB        | 5    |
| 28  | 1111/P090/100pF/500V | MA29101JAB        | 5    |
| 29  | 1111/P090/150pF/300V | MA29151JAB        | 5    |
| 30  | 1111/P090/220pF/200V | MA29221JAB        | 5    |
| 31  | 1111/P090/330pF/200V | MA29331JAB        | 5    |
| 32  | 1111/P090/470pF/200V | MA29471JAB        | 5    |
| 33  | 1111/P090/680pF/50V  | MA29681JAB        | 5    |
| 34  | 1111/P090/1000pF/50V | MA29102JAB        | 5    |

NOTE: Custom MA20 (non-magnetic) kits are available for MRI and other Medical applications. For availability, check with your Murata Sales Contact.



## CERAMIC CHIP CAPACITORS

### ASCAP Hi-Frequency 0505 (150 VDC)

- Miniature sizes (0505 and 1111)
- Very high Q at high frequency
- High RF power capabilities
- Impervious to environmental conditions
- Low noise
- Base stations, MRI systems and RF power supplies

#### MA59-HIQ0505KIT- E-

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0505/C0G/1pF/150V   | MA591R0BAB        | 5    |
| 2   | 0505/C0G/1.5pF/150V | MA591R5CAB        | 5    |
| 3   | 0505/C0G/2.2pF/150V | MA592R2CAB        | 5    |
| 4   | 0505/C0G/3.3pF/150V | MA593R3CAB        | 5    |
| 5   | 0505/C0G/4.7pF/150V | MA594R7CAB        | 5    |
| 6   | 0505/C0G/6.8pF/150V | MA596R8DAB        | 5    |
| 7   | 0505/C0G/10pF/150V  | MA59100JAB        | 5    |
| 8   | 0505/C0G/15pF/150V  | MA59150JAB        | 5    |
| 9   | 0505/C0G/22pF/150V  | MA59220JAB        | 5    |
| 10  | 0505/C0G/33pF/150V  | MA59330JAB        | 5    |
| 11  | 0505/C0G/47pF/150V  | MA59470JAB        | 5    |
| 12  | 0505/C0G/68pF/150V  | MA59680JAB        | 5    |
| 13  | 0505/C0G/100pF/150V | MA59101JAB        | 5    |

### 1111 (50 to 500 VDC)

- Miniature sizes (0505 and 1111)
- Very high Q at high frequency
- High RF power capabilities
- Impervious to environmental conditions
- Low noise
- Base stations, MRI systems and RF power supplies

#### MA69-HIQ1111KIT- E-

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 1111/C0G/1.5pF/500V | MA691R5CAB        | 5    |
| 2   | 1111/C0G/2.2pF/500V | MA692R2CAB        | 5    |
| 3   | 1111/C0G/3.3pF/500V | MA693R3CAB        | 5    |
| 4   | 1111/C0G/4.7pF/500V | MA694R7CAB        | 5    |
| 5   | 1111/C0G/6.8pF/500V | MA696R8DAB        | 5    |
| 6   | 1111/C0G/10pF/500V  | MA69100JAB        | 5    |
| 7   | 1111/C0G/15pF/500V  | MA69150JAB        | 5    |
| 8   | 1111/C0G/22pF/500V  | MA69220JAB        | 5    |
| 9   | 1111/C0G/33pF/500V  | MA69330JAB        | 5    |
| 10  | 1111/C0G/47pF/500V  | MA69470JAB        | 5    |
| 11  | 1111/C0G/68pF/500V  | MA69680JAB        | 5    |
| 12  | 1111/C0G/100pF/500V | MA69101JAB        | 5    |
| 13  | 1111/C0G/220pF/200V | MA69221JAB        | 5    |
| 14  | 1111/C0G/470pF/200V | MA69471JAB        | 5    |
| 15  | 1111/C0G/1000pF/50V | MA69102JAB        | 5    |

DESIGN ENGINEERING KITS

# CERAMIC CHIP CAPACITORS

Low ESL 0402 – 1206 (4.0 to 25 VDC)

- Low ESL. Good for noise reduction for high frequency equipment.
- Suitable for high speed IC decoupling.
- Small and high capacitance. Low profile type is available.
- 0402, 0603, 0805 and 1206 sizes

## LL-LOWESL-KIT-B -- E

| No. | Description                   | Murata Global P/N | Qty. |
|-----|-------------------------------|-------------------|------|
| 1   | 0402/X6S/0.1uF/6.3V/T=0.3mm   | LLL153C80J104ME01 | 20   |
| 2   | 0402/X6S/0.22uF/6.3V/T=0.3mm  | LLL153C80J224ME14 | 20   |
| 3   | 0603/X7R/10000pF/25V/T=0.6mm  | LLL185R71E103MA01 | 20   |
| 4   | 0603/X7R/22000pF/25V/T=0.6mm  | LLL185R71E223MA01 | 20   |
| 5   | 0603/X7R/47000pF/16V/T=0.6mm  | LLL185R71C473MA01 | 20   |
| 6   | 0603/X7R/0.1uF/10V/T=0.6mm    | LLL185R71A104MA01 | 20   |
| 7   | 0603/X7R/0.22uF/6.3V/T=0.6mm  | LLL185R70J224MA01 | 20   |
| 8   | 0603/X7S/0.47uF/4V/T=0.6mm    | LLL185C70G474MA01 | 20   |
| 9   | 0603/X7S/1uF/4V/T=0.55mm      | LLL185C70G105ME01 | 20   |
| 10  | 0603/X7S/2.2uF/4V/T=0.55mm    | LLL185C70G225ME01 | 20   |
| 11  | 0805/X7R/47000pF/25V/T=0.7mm  | LLL216R71E473MA01 | 20   |
| 12  | 0805/X7R/0.1uF/25V/T=0.7mm    | LLL216R71E104MA01 | 20   |
| 13  | 0805/X7R/0.22uF/16V/T=0.95mm  | LLL219R71C224MA01 | 20   |
| 14  | 0805/X7R/0.47uF/10V/T=0.95mm  | LLL219R71A474MA01 | 20   |
| 15  | 0805/X7R/1uF/6.3V/T=0.95mm    | LLL219R70J105MA01 | 20   |
| 16  | 0805/X7R/22000pF/25V/T=0.5mm  | LLL215R71E223MA11 | 20   |
| 17  | 0805/X7R/47000pF/16V/T=0.5mm  | LLL215R71C473MA11 | 20   |
| 18  | 0805/X7R/0.1uF/16V/T=0.5mm    | LLL215R71C104MA11 | 20   |
| 19  | 0805/X7R/0.22uF/10V/T=0.5mm   | LLL215R71A224MA11 | 20   |
| 20  | 1206/X7R/0.22uF/25V/T=1.25mm  | LLL31MR71E224MA01 | 20   |
| 21  | 1206/X7R/0.47uF/16V/T=0.75mm  | LLL317R71C474MA01 | 20   |
| 22  | 1206/X7R/1uF/16V/T=1.25mm     | LLL31MR71C105MA01 | 20   |
| 23  | 1206/X7R/2.2uF/10V/T=1.25mm   | LLL31MR71A225MA01 | 20   |
| 24  | 1206/X7S/10uF/4V/T=1.4mm      | LLL31BC70G106MA01 | 20   |
| 25  | 1206/X7R/47000pF/25V/T=0.5mm  | LLL315R71E473MA11 | 20   |
| 26  | 1206/X7R/0.1uF/25V/T=0.5mm    | LLL315R71E104MA11 | 20   |
| 27  | 1206/X7R/0.22uF/16V/T=0.5mm   | LLL315R71C224MA11 | 20   |
| 28  | 1206/X7R/0.47uF/10V/T=0.5mm   | LLL315R71A474MA11 | 20   |
| 29  | 0603/X7S/0.47uF/4V/T=0.55mm   | LLA185C70G474MA01 | 20   |
| 30  | 0603/X7S/1uF/4V/T=0.55mm      | LLA185C70G105ME01 | 20   |
| 31  | 0603/X7S/2.2uF/4V/T=0.55mm    | LLA185C70G225ME16 | 20   |
| 32  | 0805/X7R/1uF/6.3V/T=0.95mm    | LLA219R70J105MA01 | 20   |
| 33  | 0805/X7R/10000pF/25V/T=0.55mm | LLA215R71E103MA14 | 20   |
| 34  | 0805/X7R/0.1uF/16V/T=0.55mm   | LLA215R71C104MA14 | 20   |
| 35  | 0805/X7R/0.22uF/6.3V/T=0.55mm | LLA215R70J224MA14 | 20   |
| 36  | 0805/X7R/0.47uF/6.3V/T=0.55mm | LLA215R70J474MA14 | 20   |
| 37  | 0805/X7S/1uF/4V/T=0.55mm      | LLA215C70G105MA14 | 20   |
| 38  | 0805/X7S/2.2uF/4V/T=0.55mm    | LLA215C70G225ME11 | 20   |
| 39  | 0805/X7S/4.7uF/4V/T=0.55mm    | LLA215C70G475ME19 | 20   |
| 40  | 1206/X7R/0.47uF/16V/T=0.95mm  | LLA319R71C474MA01 | 20   |
| 41  | 1206/X7R/1uF/16V/T=1.25mm     | LLA31MR71C105MA01 | 20   |
| 42  | 1206/X7R/2.2uF/10V/T=1.25mm   | LLA31MR71A225MA01 | 20   |
| 43  | 1206/X7R/0.22uF/16V/T=0.55mm  | LLA315R71C224MA14 | 20   |
| 44  | 1206/X7R/0.47uF/10V/T=0.55mm  | LLA315R71A474MA14 | 20   |
| 45  | 1206/X7R/1uF/6.3V/T=0.55mm    | LLA315R70J105MA14 | 20   |
| 46  | 1206/X7R/2.2uF/6.3V/T=0.55mm  | LLA315R70J225MA14 | 20   |
| 47  | 0805/X7S/1uF/4V/T=0.55mm      | LLM215C70G105MA11 | 20   |
| 48  | 0805/X7S/2.2uF/4V/T=0.55mm    | LLM215C70G225ME11 | 20   |
| 49  | 1206/X7R/2.2uF/6.3V/T=0.55mm  | LLM315R70J225MA11 | 20   |

## LLL Standard 2 Terminal (Reversed Geometry Low ESL Type)

1. Low ESL: 150 to 250pH. Suitable for noise reduction at high frequencies (> 200MHz)
2. Operating Temperature:
  - X7R -55°C to 125°C with a ±15% cap change over temp range
  - X7S -55°C to 125°C with a ±22% cap change over temp range

## LLA Eight Terminal (Low ESL Type)

1. Lower ESL: 80 to 120pH. Suitable for high speed (800MHz to 4GHz) IC decoupling
2. Operating Temperature:
  - X7R -55°C to 125°C with a ±15% cap change over temp range
  - X7S -55°C to 125°C with a ±22% cap change over temp range

## LLM Ten Terminal (Low ESL Type)

1. Lowest ESL: 35 to 45pH. Suitable for high speed (1GHz to 4GHz) IC decoupling
2. Operating Temperature:
  - X7R -55°C to 125°C with a ±15% cap change over temp range
  - X7S -55°C to 125°C with a ±22% cap change over temp range

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

## CERAMIC CHIP CAPACITORS

## ASCAP Cap Arrays 0504 – 1206 (10 to 50 VDC)

- Mounting cost saving (one placement instead of four or two).
- High density mounting due to mounting space saving.
- Four or two element capacitors in one chip.
- 0504, 0805 and 1206 sizes

## GNM-CARRAY-KIT-B-E

| No. | Description          | Murata Global P/N  | Qty. |
|-----|----------------------|--------------------|------|
| 1   | 0302/X5R/0.1pF/16V   | GNM0M2R61C104ME18  | 40   |
| 2   | 0504/X7R/1000pF/50V  | GNM1M2R71H102MA01  | 40   |
| 3   | 0504/X7R/10000pF/25V | GNM1M2R71E103MA01  | 40   |
| 4   | 0504/X5R/0.1uF/10V   | GNM1M2R61A104MA01  | 40   |
| 5   | 0504/X5R/1uF/16V     | GNM1M2R61C105ME18  | 40   |
| 6   | 0504/X5R/1uF/10V     | GNM1M2R61A105ME17  | 40   |
| 7   | 0805/X5R/1uF/16V     | GNM212R61C105MA16  | 40   |
| 8   | 0805/X5R/2.2uF/10V   | GNM212R61A225ME16  | 40   |
| 9   | 0805/X7R/1000pF/50V  | GNM214R71H102MA01  | 40   |
| 10  | 0805/X7R/10000pF/25V | GNM214R71E103MA01  | 40   |
| 11  | 0805/X7R/0.1uF/16V   | GNM214R71C104MA01  | 40   |
| 12  | 0805/X5R/1uF/10V     | GNM214R61A105ME17  | 40   |
| 13  | 0504/COG/10pF/50V    | GNM1 M25C1H100KD01 | 40   |
| 14  | 0504/COG/15pF/50V    | GNM1M25C1H150KD01  | 40   |
| 15  | 0504/COG/22pF/50V    | GNM1M25C1H220KD01  | 40   |
| 16  | 0504/COG/33pF/50V    | GNM1M25C1H330KD01  | 40   |
| 17  | 0504/COG/47pF/50V    | GNM1M25C1H470KD01  | 40   |
| 18  | 0504/COG/68p/50V     | GNM1M25C1H680KD01  | 40   |
| 19  | 0504/COG/100pF/50V   | GNM1M25C1H101KD01  | 40   |
| 20  | 0504/COG/150pF50V    | GNM1M25C1H151KD01  | 40   |
| 21  | 0504/COG/220pF/50V   | GNM1M25C1H221KD01  | 40   |
| 22  | 0805/COG/10pF/50V    | GNM2145C1H100KD01  | 40   |
| 23  | 0805/COG/15pF/50V    | GNM2145C1H150KD01  | 40   |
| 24  | 0805/COG/22pF/50V    | GNM2145C1H220KD01  | 40   |
| 25  | 0805/COG/33pF/50V    | GNM2145C1H330KD01  | 40   |
| 26  | 0805/COG/47pF/50V    | GNM2145C1H470KD01  | 40   |
| 27  | 0805/COG/68pF/50V    | GNM2145C1H680KD01  | 40   |
| 28  | 0805/COG/100pF/50V   | GNM2145C1H101KD01  | 40   |
| 29  | 0805/COG/150pF/50V   | GNM2145C1H151KD01  | 40   |
| 30  | 0805/COG/220pF/50V   | GNM2145C1H221KD01  | 40   |

# CERAMIC CHIP CAPACITORS

## Automotive Grade 0402 (16 to 50 VDC)

- GCM series is for power-train and automotive safety equipment. GRM series is available for other automotive equipment such as comfort, security, information and entertainment.
- GCM series meets AEC-Q200 requirements.
- GCM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- No polarity
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.
- GCM ultra small series is suitable for TPMS or RKE applications.

### GCM15-KIT- - - - - A

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0402/C0G/1.0pF/50V  | GCM1555C1H1R0CZ13 | 40   |
| 2   | 0402/C0G/1.2pF/50V  | GCM1555C1H1R2CZ13 | 40   |
| 3   | 0402/C0G/1.5pF/50V  | GCM1555C1H1R5CZ13 | 40   |
| 4   | 0402/C0G/1.8pF/50V  | GCM1555C1H1R8CZ13 | 40   |
| 5   | 0402/C0G/2.0pF/50V  | GCM1555C1H2R0CZ13 | 40   |
| 6   | 0402/C0G/2.2pF/50V  | GCM1555C1H2R2CZ13 | 40   |
| 7   | 0402/C0G/2.7pF/50V  | GCM1555C1H2R7CZ13 | 40   |
| 8   | 0402/C0G/3.0pF/50V  | GCM1555C1H3R0CZ13 | 40   |
| 9   | 0402/C0G/3.3pF/50V  | GCM1555C1H3R3CZ13 | 40   |
| 10  | 0402/C0G/3.9pF/50V  | GCM1555C1H3R9CZ13 | 40   |
| 11  | 0402/C0G/4.0pF/50V  | GCM1555C1H4R0CZ13 | 40   |
| 12  | 0402/C0G/4.7pF/50V  | GCM1555C1H4R7CZ13 | 40   |
| 13  | 0402/C0G/5.0pF/50V  | GCM1555C1H5R0CZ13 | 40   |
| 14  | 0402/C0G/5.6pF/50V  | GCM1555C1H5R6DZ13 | 40   |
| 15  | 0402/C0G/6.0pF/50V  | GCM1555C1H6R0DZ13 | 40   |
| 16  | 0402/C0G/6.8pF/50V  | GCM1555C1H6R8DZ13 | 40   |
| 17  | 0402/C0G/7.0pF/50V  | GCM1555C1H7R0DZ13 | 40   |
| 18  | 0402/C0G/8.0pF/50V  | GCM1555C1H8R0DZ13 | 40   |
| 19  | 0402/C0G/8.2pF/50V  | GCM1555C1H8R2DZ13 | 40   |
| 20  | 0402/C0G/9.0pF/50V  | GCM1555C1H9R0DZ13 | 40   |
| 21  | 0402/C0G/10pF/50V   | GCM1555C1H100JZ13 | 40   |
| 22  | 0402/C0G/12pF/50V   | GCM1555C1H120JZ13 | 40   |
| 23  | 0402/C0G/15pF/50V   | GCM1555C1H150JZ13 | 40   |
| 24  | 0402/C0G/18pF/50V   | GCM1555C1H180JZ13 | 40   |
| 25  | 0402/C0G/22pF/50V   | GCM1555C1H220JZ13 | 40   |
| 26  | 0402/C0G/27pF/50V   | GCM1555C1H270JZ13 | 40   |
| 27  | 0402/C0G/33pF/50V   | GCM1555C1H330JZ13 | 40   |
| 28  | 0402/C0G/39pF/50V   | GCM1555C1H390JZ13 | 40   |
| 29  | 0402/C0G/47pF/50V   | GCM1555C1H470JZ13 | 40   |
| 30  | 0402/C0G/56pF/50V   | GCM1555C1H560JZ13 | 40   |
| 31  | 0402/C0G/68pF/50V   | GCM1555C1H680JZ13 | 40   |
| 32  | 0402/C0G/82pF/50V   | GCM1555C1H820JZ13 | 40   |
| 33  | 0402/C0G/100pF/50V  | GCM1555C1H101JZ13 | 40   |
| 34  | 0402/C0G/120pF/50V  | GCM1555C1H121JA16 | 40   |
| 35  | 0402/C0G/150pF/50V  | GCM1555C1H151JA16 | 40   |
| 36  | 0402/C0G/180pF/50V  | GCM1555C1H181JA16 | 40   |
| 37  | 0402/C0G/220pF/50V  | GCM1555C1H221JA16 | 40   |
| 38  | 0402/C0G/270pF/50V  | GCM1555C1H271JA16 | 40   |
| 39  | 0402/C0G/330pF/50V  | GCM1555C1H331JA16 | 40   |
| 40  | 0402/C0G/390pF/50V  | GCM1555C1H391JA16 | 40   |
| 41  | 0402/C0G/470pF/50V  | GCM1555C1H471JA16 | 40   |
| 42  | 0402/X7R/220pF/50V  | GCM155R71H221KA37 | 40   |
| 43  | 0402/X7R/330pF/50V  | GCM155R71H331KA37 | 40   |
| 44  | 0402/X7R/470pF/50V  | GCM155R71H471KA37 | 40   |
| 45  | 0402/X7R/680pF/50V  | GCM155R71H681KA37 | 40   |
| 46  | 0402/X7R/1000pF/50V | GCM155R71H102KA37 | 40   |
| 47  | 0402/X7R/1500pF/50V | GCM155R71H152KA37 | 40   |
| 48  | 0402/X7R/2200pF/50V | GCM155R71H222KA37 | 40   |

### GCM15-KIT- - - - - A continued

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 49  | 0402/X7R/3300pF/50V  | GCM155R71H332KA37 | 40   |
| 50  | 0402/X7R/4700pF/50V  | GCM155R71H472KA37 | 40   |
| 51  | 0402/X7R/6800pF/50V  | GCM155R71H682KA55 | 40   |
| 52  | 0402/X7R/10000pF/50V | GCM155R71H103KA55 | 40   |
| 53  | 0402/X7R/15000pF/50V | GCM155R71H153KA55 | 40   |
| 54  | 0402/X7R/22000pF/50V | GCM155R71H223KA55 | 40   |
| 55  | 0402/X7R/10000pF/25V | GCM155R71E103KA37 | 40   |
| 56  | 0402/X7R/15000pF/25V | GCM155R71E153KA55 | 40   |
| 57  | 0402/X7R/22000pF/25V | GCM155R71E223KA55 | 40   |
| 58  | 0402/X7R/33000pF/25V | GCM155R71E333KA55 | 40   |
| 59  | 0402/X7R/47000pF/25V | GCM155R71E473KA55 | 40   |
| 60  | 0402/X7R/68000pF/16V | GCM155R71C683KA55 | 40   |
| 61  | 0402/X7R/0.1uF/16V   | GCM155R71C104KA55 | 40   |

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

# CERAMIC CHIP CAPACITORS

Automotive Grade 0603 – 1206 (50 VDC)

- GCM series is for power-train and automotive safety equipment. GRM series is available for other automotive equipment such as comfort, security, information and entertainment.
- GCM series meets AEC-Q200 requirements.
- GCM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- No polarity
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.

## GCM- - -KIT-C0G- - - -A

| No. | Description         | Murata Global P/N | Qty. |
|-----|---------------------|-------------------|------|
| 1   | 0603/C0G/1.0pF/50V  | GCM1885C1H1R0CZ13 | 20   |
| 2   | 0603/C0G/1.2pF/50V  | GCM1885C1H1R2CZ13 | 20   |
| 3   | 0603/C0G/1.5pF/50V  | GCM1885C1H1R5CZ13 | 20   |
| 4   | 0603/C0G/1.8pF/50V  | GCM1885C1H1R8CZ13 | 20   |
| 5   | 0603/C0G/2.0pF/50V  | GCM1885C1H2R0CZ13 | 20   |
| 6   | 0603/C0G/2.2pF/50V  | GCM1885C1H2R2CZ13 | 20   |
| 7   | 0603/C0G/2.7pF/50V  | GCM1885C1H2R7CZ13 | 20   |
| 8   | 0603/C0G/3.0pF/50V  | GCM1885C1H3R0CZ13 | 20   |
| 9   | 0603/C0G/3.3pF/50V  | GCM1885C1H3R3CZ13 | 20   |
| 10  | 0603/C0G/3.9pF/50V  | GCM1885C1H3R9CZ13 | 20   |
| 11  | 0603/C0G/4.0pF/50V  | GCM1885C1H4R0CZ13 | 20   |
| 12  | 0603/C0G/4.7pF/50V  | GCM1885C1H4R7CZ13 | 20   |
| 13  | 0603/C0G/5.0pF/50V  | GCM1885C1H5R0CZ13 | 20   |
| 14  | 0603/C0G/5.6pF/50V  | GCM1885C1H5R6DZ13 | 20   |
| 15  | 0603/C0G/6.0pF/50V  | GCM1885C1H6R0DZ13 | 20   |
| 16  | 0603/C0G/6.8pF/50V  | GCM1885C1H6R8DZ13 | 20   |
| 17  | 0603/C0G/7.0pF/50V  | GCM1885C1H7R0DZ13 | 20   |
| 18  | 0603/C0G/8.0pF/50V  | GCM1885C1H8R0DZ13 | 20   |
| 19  | 0603/C0G/8.2pF/50V  | GCM1885C1H8R2DZ13 | 20   |
| 20  | 0603/C0G/9.0pF/50V  | GCM1885C1H9R0DZ13 | 20   |
| 21  | 0603/C0G/10pF/50V   | GCM1885C1H100JA16 | 20   |
| 22  | 0603/C0G/12pF/50V   | GCM1885C1H120JA16 | 20   |
| 23  | 0603/C0G/15pF/50V   | GCM1885C1H150JA16 | 20   |
| 24  | 0603/C0G/18pF/50V   | GCM1885C1H180JA16 | 20   |
| 25  | 0603/C0G/22pF/50V   | GCM1885C1H220JA16 | 20   |
| 26  | 0603/C0G/27pF/50V   | GCM1885C1H270JA16 | 20   |
| 27  | 0603/C0G/33pF/50V   | GCM1885C1H330JA16 | 20   |
| 28  | 0603/C0G/39pF/50V   | GCM1885C1H390JA16 | 20   |
| 29  | 0603/C0G/47pF/50V   | GCM1885C1H470JA16 | 20   |
| 30  | 0603/C0G/56pF/50V   | GCM1885C1H560JA16 | 20   |
| 31  | 0603/C0G/68pF/50V   | GCM1885C1H680JA16 | 20   |
| 32  | 0603/C0G/82pF/50V   | GCM1885C1H820JA16 | 20   |
| 33  | 0603/C0G/100pF/50V  | GCM1885C1H101JA16 | 20   |
| 34  | 0603/C0G/120pF/50V  | GCM1885C1H121JA16 | 20   |
| 35  | 0603/C0G/150pF/50V  | GCM1885C1H151JA16 | 20   |
| 36  | 0603/C0G/180pF/50V  | GCM1885C1H181JA16 | 20   |
| 37  | 0603/C0G/220pF/50V  | GCM1885C1H221JA16 | 20   |
| 38  | 0603/C0G/270pF/50V  | GCM1885C1H271JA16 | 20   |
| 39  | 0603/C0G/330pF/50V  | GCM1885C1H331JA16 | 20   |
| 40  | 0603/C0G/390pF/50V  | GCM1885C1H391JA16 | 20   |
| 41  | 0603/C0G/470pF/50V  | GCM1885C1H471JA16 | 20   |
| 42  | 0603/C0G/560pF/50V  | GCM1885C1H561JA16 | 20   |
| 43  | 0603/C0G/680pF/50V  | GCM1885C1H681JA16 | 20   |
| 44  | 0603/C0G/820pF/50V  | GCM1885C1H821JA16 | 20   |
| 45  | 0603/C0G/1000pF/50V | GCM1885C1H102JA16 | 20   |
| 46  | 0603/C0G/1200pF/50V | GCM1885C1H122JA16 | 20   |
| 47  | 0603/C0G/1500pF/50V | GCM1885C1H152JA16 | 20   |
| 48  | 0603/C0G/1800pF/50V | GCM1885C1H182JA16 | 20   |

## GCM- - -KIT-C0G- - - -A continued

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 49  | 0603/C0G/2200pF/50V  | GCM1885C1H222JA16 | 20   |
| 50  | 0603/C0G/2700pF/50V  | GCM1885C1H272JA16 | 20   |
| 51  | 0805/C0G/3300pF/50V  | GCM2165C1H332JA16 | 20   |
| 52  | 0805/C0G/3900pF/50V  | GCM2165C1H392JA16 | 20   |
| 53  | 0805/C0G/4700pF/50V  | GCM2165C1H472JA16 | 20   |
| 54  | 0805/C0G/5600pF/50V  | GCM2195C1H562JA16 | 20   |
| 55  | 0805/C0G/6800pF/50V  | GCM2195C1H682JA16 | 20   |
| 56  | 0805/C0G/8200pF/50V  | GCM2195C1H822JA16 | 20   |
| 57  | 0805/C0G/10000pF/50V | GCM2195C1H103JA16 | 20   |
| 58  | 1206/C0G/12000pF/50V | GCM3195C1H123JA16 | 20   |
| 59  | 1206/C0G/15000pF/50V | GCM3195C1H153JA16 | 20   |
| 60  | 1206/C0G/18000pF/50V | GCM3195C1H183JA16 | 20   |
| 61  | 1206/C0G/22000pF/50V | GCM3195C1H223JA16 | 20   |

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

DESIGN ENGINEERING KITS

# CERAMIC CHIP CAPACITORS

## Automotive Grade 0603 – 1210 (10 to 50 VDC)

- GCM series is for power-train and automotive safety equipment. GRM series is available for other automotive equipment such as comfort, security, information and entertainment.
- GCM series meets AEC-Q200 requirements.
- GCM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- TA chip capacitor replacement product lineup is available in X7R (X7S) temperature characteristics.
- No polarity
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.

### GCM – – –KIT-X7R – – – –A

| No. | Description          | Murata Global P/N | Qty. |
|-----|----------------------|-------------------|------|
| 1   | 0603/X7R/1000pF/50V  | GCM188R71H102KA37 | 20   |
| 2   | 0603/X7R/1500pF/50V  | GCM188R71H152KA37 | 20   |
| 3   | 0603/X7R/2200pF/50V  | GCM188R71H222KA37 | 20   |
| 4   | 0603/X7R/3300pF/50V  | GCM188R71H332KA37 | 20   |
| 5   | 0603/X7R/4700pF/50V  | GCM188R71H472KA37 | 20   |
| 6   | 0603/X7R/6800pF/50V  | GCM188R71H682KA37 | 20   |
| 7   | 0603/X7R/10000pF/50V | GCM188R71H103KA37 | 20   |
| 8   | 0603/X7R/15000pF/50V | GCM188R71H153KA37 | 20   |
| 9   | 0603/X7R/22000pF/50V | GCM188R71H223KA37 | 20   |
| 10  | 0603/X7R/33000pF/50V | GCM188R71H333KA55 | 20   |
| 11  | 0603/X7R/47000pF/50V | GCM188R71H473KA55 | 20   |
| 12  | 0603/X7R/68000pF/50V | GCM188R71H683KA57 | 20   |
| 13  | 0603/X7R/0.1uF/50V   | GCM188R71H104KA57 | 20   |
| 14  | 0603/X7R/33000pF/25V | GCM188R71E333KA37 | 20   |
| 15  | 0603/X7R/47000pF/25V | GCM188R71E473KA37 | 20   |
| 16  | 0603/X7R/0.15uF/25V  | GCM188R71E154KA37 | 20   |
| 17  | 0603/X7R/0.22uF/25V  | GCM188R71E224KA55 | 20   |
| 18  | 0603/X7R/0.47uF/25V  | GCM188R71E474KA64 | 20   |
| 19  | 0603/X7R/68000pF/16V | GCM188R71C683KA37 | 20   |
| 20  | 0603/X7R/0.1uF/16V   | GCM188R71C104KA37 | 20   |
| 21  | 0603/X7R/0.33uF/16V  | GCM188R71C334KA37 | 20   |
| 22  | 0603/X7R/0.47uF/16V  | GCM188R71C474KA55 | 20   |
| 23  | 0603/X7S/1uF/16V     | GCM188C71C105KA64 | 20   |
| 24  | 0805/X7R/0.15uF/50V  | GCM21BR71H154KA37 | 20   |
| 25  | 0805/X7R/0.22uF/50V  | GCM21BR71H224KA37 | 20   |
| 26  | 0805/X7R/0.33uF/50V  | GCM219R71H334KA55 | 20   |
| 27  | 0805/X7R/0.47uF/50V  | GCM21BR71H474KA55 | 20   |
| 28  | 0805/X7R/0.47uF/25V  | GCM219R71E474KA55 | 20   |
| 29  | 0805/X7R/0.68uF/25V  | GCM21BR71E684KA55 | 20   |
| 30  | 0805/X7R/1uF/25V     | GCM21BR71E105KA56 | 20   |
| 31  | 0805/X7R/2.2uF/25V   | GCM21BR71E225KA73 | 20   |
| 32  | 0805/X7R/0.68uF/16V  | GCM219R71C684KA37 | 20   |
| 33  | 0805/X7R/1uF/16V     | GCM219R71C105KA37 | 20   |
| 34  | 0805/X7R/1.5uF/16V   | GCM21BR71C155KA37 | 20   |
| 35  | 0805/X7R/2.2uF/16V   | GCM21BR71C225KA64 | 20   |
| 36  | 0805/X7R/3.3uF/16V   | GCM21BR71C335KA73 | 20   |
| 37  | 0805/X7S/4.7uF/10V   | GCM21BC71A475KA73 | 20   |
| 38  | 1206/X7R/1uF/50V     | GCM31MR71H105KA55 | 20   |
| 39  | 1206/X7R/2.2uF/50V   | GCM31CR71H225KA55 | 20   |
| 40  | 1206/X7R/2.2uF/25V   | GCM31MR71E225KA57 | 20   |
| 41  | 1206/X7R/3.3uF/25V   | GCM31MR71E335KA57 | 20   |
| 42  | 1206/X7R/4.7uF/25V   | GCM31CR71E475KA55 | 20   |
| 43  | 1206/X7R/10uF/10V    | GCM31CR71A106KA64 | 20   |
| 44  | 1206/X7R/22uF/6.3V   | GCM31CR70J226KE23 | 20   |
| 45  | 1210/X7R/3.3uF/50V   | GCM32DR71H335KA55 | 20   |
| 46  | 1210/X7R/4.7uF/50V   | GCM32ER71H475KA55 | 20   |

### GCM – – –KIT-X7R – – – –A continued

| No. | Description        | Murata Global P/N | Qty. |
|-----|--------------------|-------------------|------|
| 47  | 1210/X7R/10uF/25V  | GCM32ER71E106KA57 | 20   |
| 48  | 1210/X7R/10uF/16V  | GCM32DR71C106KA37 | 20   |
| 49  | 1210/X7R/22uF/10V  | GCM32ER71A226KE12 | 20   |
| 50  | 1210/X7R/47uF/6.3V | GCM32ER70J476KE19 | 20   |

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

## CERAMIC CHIP CAPACITORS

Automotive Grade 0603 – 1206 (100 VDC)

- GCM series is for power-train and automotive safety equipment. GRM series is available for other automotive equipment such as comfort, security, information and entertainment.
- GCM series meets AEC-Q200 requirements.
- GCM series is offered with a Ni barrier termination plated with Matte Tin (Sn), and is RoHS compliant.
- No polarity
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.

### GCM — — — KIT-100V — — — A

| No. | Description           | Murata Global P/N | Qty. |
|-----|-----------------------|-------------------|------|
| 1   | 0603/C0G/10pF/100V    | GCM1885C2A100JA16 | 20   |
| 2   | 0603/C0G/12pF/100V    | GCM1885C2A120JA16 | 20   |
| 3   | 0603/C0G/15pF/100V    | GCM1885C2A150JA16 | 20   |
| 4   | 0603/C0G/18pF/100V    | GCM1885C2A180JA16 | 20   |
| 5   | 0603/C0G/22pF/100V    | GCM1885C2A220JA16 | 20   |
| 6   | 0603/C0G/27pF/100V    | GCM1885C2A270JA16 | 20   |
| 7   | 0603/C0G/33pF/100V    | GCM1885C2A330JA16 | 20   |
| 8   | 0603/C0G/39pF/100V    | GCM1885C2A390JA16 | 20   |
| 9   | 0603/C0G/47pF/100V    | GCM1885C2A470JA16 | 20   |
| 10  | 0603/C0G/56pF/100V    | GCM1885C2A560JA16 | 20   |
| 11  | 0603/C0G/68pF/100V    | GCM1885C2A680JA16 | 20   |
| 12  | 0603/C0G/82pF/100V    | GCM1885C2A820JA16 | 20   |
| 13  | 0603/C0G/100pF/100V   | GCM1885C2A101JA16 | 20   |
| 14  | 0603/C0G/120pF/100V   | GCM1885C2A121JA16 | 20   |
| 15  | 0603/C0G/150pF/100V   | GCM1885C2A151JA16 | 20   |
| 16  | 0603/C0G/180pF/100V   | GCM1885C2A181JA16 | 20   |
| 17  | 0603/C0G/220pF/100V   | GCM1885C2A221JA16 | 20   |
| 18  | 0603/C0G/270pF/100V   | GCM1885C2A271JA16 | 20   |
| 19  | 0603/C0G/330pF/100V   | GCM1885C2A331JA16 | 20   |
| 20  | 0603/C0G/390pF/100V   | GCM1885C2A391JA16 | 20   |
| 21  | 0603/C0G/470pF/100V   | GCM1885C2A471JA16 | 20   |
| 22  | 0603/C0G/560pF/100V   | GCM1885C2A561JA16 | 20   |
| 23  | 0603/C0G/680pF/100V   | GCM1885C2A681JA16 | 20   |
| 24  | 0603/C0G/820pF/100V   | GCM1885C2A821JA16 | 20   |
| 25  | 0603/C0G/1000pF/100V  | GCM1885C2A102JA16 | 20   |
| 26  | 0603/C0G/1200pF/100V  | GCM1885C2A122JA16 | 20   |
| 27  | 0603/C0G/1500pF/100V  | GCM1885C2A152JA16 | 20   |
| 28  | 0805/C0G/1800pF/100V  | GCM2165C2A182JA16 | 20   |
| 29  | 0805/C0G/2200pF/100V  | GCM2165C2A222JA16 | 20   |
| 30  | 0805/C0G/2700pF/100V  | GCM2165C2A272JA16 | 20   |
| 31  | 0805/C0G/3300pF/100V  | GCM2165C2A332JA16 | 20   |
| 32  | 1206/C0G/3900pF/100V  | GCM3195C2A392JA16 | 20   |
| 33  | 1206/C0G/4700pF/100V  | GCM3195C2A472JA16 | 20   |
| 34  | 1206/C0G/5600pF/100V  | GCM3195C2A562JA16 | 20   |
| 35  | 0603/X7R/1000pF/100V  | GCM188R72A102KA37 | 20   |
| 36  | 1206/C0G/8200pF/100V  | GCM3195C2A822JA16 | 20   |
| 37  | 1206/C0G/10000pF/100V | GCM3195C2A103JA16 | 20   |
| 38  | 1206/C0G/6800pF/100V  | GCM3195C2A682JA16 | 20   |
| 39  | 0603/X7R/1500pF/100V  | GCM188R72A152KA37 | 20   |
| 40  | 0603/X7R/2200pF/100V  | GCM188R72A222KA37 | 20   |
| 41  | 0603/X7R/3300pF/100V  | GCM188R72A332KA37 | 20   |
| 42  | 0603/X7R/4700pF/100V  | GCM188R72A472KA37 | 20   |
| 43  | 0603/X7R/6800pF/100V  | GCM188R72A682KA37 | 20   |
| 44  | 0603/X7R/10000pF/100V | GCM188R72A103KA37 | 20   |
| 45  | 0603/X7R/15000pF/100V | GCM188R72A153KA37 | 20   |
| 46  | 0603/X7R/22000pF/100V | GCM188R72A223KA37 | 20   |
| 47  | 0603/X7R/0.1uF/100V   | GCM188R72A104KA64 | 20   |
| 48  | 0805/X7R/33000pF/100V | GCM219R72A333KA37 | 20   |

### GCM — — — KIT-100V — — — A *continued*

| No. | Description           | Murata Global P/N | Qty. |
|-----|-----------------------|-------------------|------|
| 49  | 0805/X7R/47000pF/100V | GCM21BR72A473KA37 | 20   |
| 50  | 0805/X7R/68000pF/100V | GCM21BR72A683KA37 | 20   |
| 51  | 0805/X7R/0.1uF/100V   | GCM21BR72A104KA37 | 20   |
| 52  | 1206/X7R/0.15uF/100V  | GCM31MR72A154KA37 | 20   |
| 53  | 1206/X7R/0.22uF/100V  | GCM31MR72A224KA37 | 20   |

NOTE: For Ceramic Chip Capacitors, dashes are part of the part number and must be included when placing an order.

## RADIAL LEADED MONOLITHIC CERAMIC CHIP CAPACITORS (50 to 630 VDC)

### RPE 100 VDC and less

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Small dimensions, large capacitance, and a capacity volume ratio of 10 $\mu$ F/cm cube, close to that of electrolytic capacitors. These do not have polarity.
- Excellent frequency characteristics and due to these small internal inductance are suitable for high frequency.
- Epoxy coated type which are not highly flammable, having characteristics equivalent to the UL94V-0 standard.
- No polarity
- Stringent dimensional tolerances allow highly reliable, high speed automatic chip placement on PCBs.

### RDE 250 and 630 VDC

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Small size and large capacitance
- Low ESR characteristics for high frequency
- Epoxy coated type which are not highly flammable, having characteristics equivalent to the UL94V-0 standard.
- No polarity
- Application only for consumer electronics equipment.

## MEDIUM VOLTAGE MONOLITHIC CERAMIC CHIP CAPACITORS (250 to 3.15 KV)

### U2J, 250V, 630V, 1KV, 2KV, 3.15KV

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Murata's original internal electrode structure realizes high flash-over voltage.
- A new monolithic structure for small, surface-mountable devices capable of operating at high voltage levels.
- Sn-plated external electrodes realize good solderability.
- Use the GRM21/31 type with flow or reflow soldering, and other types with reflow soldering only.
- Low-loss and suitable for high frequency circuits
- Working VDC: 250V, 630V, 1kV, 2kV, 3.15kV

### X7R, 250V, 630V

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- A new monolithic structure for small, high capacitance capable of operating at high voltage levels.
- Sn-plated external electrodes realizes good solderability.
- Use the GRM18/21/31 types with flow or reflow soldering, and other types with reflow soldering only.
- Working VDC: 250V, 630V

### GR4, X7R, 2KV

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- These items are designed specifically for telecommunication devices (IEEE802.3) in Ethernet LAN.
- A new monolithic structure for small, high capacitance components capable of operating at high voltage levels.
- Sn-plated external electrodes realizes good solderability.
- Only for reflow soldering
- The low-profile type (thickness: 1.5mm max.) is available. Fit for use on thinner type equipment.
- Working Voltage: 2000V

## RADIAL LEADED MEDIUM VOLTAGE DISC CAPACITORS (500 to 6.3 KV)

### DES, DEA, DEB, DEH and DEC Series

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Operating temperature range is guaranteed up to 125 degree C.
- Coated with flame-retardant epoxy resin (equivalent to UL94V-0 standard).
- Taping available for automatic insertion.
- Available product for RoHS Restriction (EU Directive 2002/95/EC).
- Working Voltages: DES series: 500 & 1KVDC; DEA, DEB, and DEH series: 1KV, 2KV, 3.15KV; DEC Series: 6.3 KVDC



## CERAMIC CHIP SAFETY CAPACITORS (250 VDC)

### GD Series SMD

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- A new monolithic structure for small, high capacitance capable of operating at high voltage levels.
- The type GD can be used as a Y3-class capacitor.
- Available for equipment based on IEC/EN60950 and UL1950.
- +125 degree C guaranteed
- Only for reflow soldering
- The low-profile type (thickness: 1.5mm max.) is available. Fit for use on thinner type equipment.
- Working Voltage: 250 VAC

### GF Series SMD

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- A new monolithic structure for small, high capacitance capable of operating at high voltage levels.
- The type GF can be used as a Y2-class capacitor.
- Available for equipment based on IEC/EN60950 and UL1950. The GA352/355 types are available for equipment based on IEC/EN60065, UL1492, and UL6500.
- +125 degree C guaranteed
- Only for reflow soldering
- The low-profile type (thickness: 1.5mm max.) is available. Fit for use on thinner type equipment.
- Working Voltage: 250 VAC

## RADIAL LEADED DISC SAFETY CAPACITORS (250 VAC)

### KX Series Leaded Safety Kit

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Operating temperature range guaranteed up to 125 degrees (UL: 85 deg.)
- Dielectric strength: AC4000V
- Class X1/Y1 capacitors which are recognized by UL/CSA/BSI/SEMKO/SEV/VDE/FIMKO/NEMKO/DEMKO/IMQ.
- Possible to use with a component in appliance requiring reinforced insulation and double insulation based on UL1492, IEC60065 and IEC60950.
- Coated with flame-retardant epoxy resin (conforming to UL94V-0 standard).
- Cost-saving automatic insertion available.
- Available product for RoHS Restriction (EU Directive 2002/95/EC)
- Working Voltage: 250 VAC

### KY Series Leaded Safety Kit

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Operating temperature range guaranteed up to 125 degrees (UL: 85 deg.)
- Dielectric strength: AC2000V (In case of lead spacing F=5mm), AC2600V (In case of lead spacing F=7.5mm)
- Class X1/Y2 capacitors which are recognized by UL/CSA/BSI/SEMKO/SEV/VDE/FIMKO/NEMKO/DEMKO/NSW.
- Coated with flame-retardant epoxy resin (conforming to UL94V-0 standard).
- Cost-saving automatic insertion available.
- Available product for RoHS Restriction (EU Directive 2002/95/EC)
- Working Voltage: 250 VAC

## HIGH RF POWER LOW LOSS CERAMIC CHIP CAPACITORS

(up to 300MHz)

---

### **HPPB5 Series SMD**

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Size: 4642
- Temperature Coefficient: P90
- Voltage: 1000, 2500, 3600, 5000, and 5400VDC
- Cap Range: 1pF to 3000pF
- Frequency Range: Up to 300MHz.
- Excellent frequency characteristics and due to small internal inductance.  
These parts are suitable for high RF power applications.
- Nonmagnetic (SMD and Axial [flush mount] Ribbon Leaded)
- HPPB5 Series SMD or Ribbon Leaded

### **HPPAH Series SMD**

For availability check with your Murata Sales Contact. Part numbers in kits depend on application.

- Size: 2622
- Temperature Coefficient: P90
- Voltage: 300, 500, 1000, 1500, 2500VDC
- Cap Range: 1pF to 2700pF
- Frequency Range: Up to 300MHz.
- Excellent frequency characteristics and due to small internal inductance.  
These parts are suitable for high RF power applications.
- Nonmagnetic (SMD)

## MICROWAVE COAXIAL CONNECTORS

- The Microwave Switch Connectors provide an easy and reliable test point allowing for handsfree operation when verifying the designs functionality or when doing circuit modification.
- Popular applications include cell phones, GPS, WiMax, UWB, Bluetooth, Zigbee and WLAN products.
- Small size: SWF - 2.5 x 2.4 x 1.4mm (L x W x H)  
SWD - 3.0 x 3.0 x 1.75mm (L x W x H)
- Wide Operating Frequency Ranges - DC to 6GHz
- Low insertion loss - 0.1dB from DC to 3GHz and 0.2 max from 3 to 6GHz
- High engagement count: SWF - 100 cycles  
SWD - 500 cycles
- Reflow compatible with today's automated production processes
- RoHS compliant

### SWF SERIES KIT M1KMM8130-SWF01

| No. | Description                      | Murata Global P/N     | Qty. |
|-----|----------------------------------|-----------------------|------|
| 1   | Board Mounted Switch Connectors  | MM8130-2600B          | 25   |
| 2   | Manual Test Probe                | MXHS83QE3000          | 1    |
| 3   | Evaluation Board with Receptacle | MM8130-2600B with PCB | 1    |
| 4   | Instructional Guide              | n/a                   | 1    |

### SWD SERIES KIT M1KMM8430-SWD01

| No. | Description                      | Murata Global P/N     | Qty. |
|-----|----------------------------------|-----------------------|------|
| 1   | Board Mounted Switch Connectors  | MM8430-2610B          | 25   |
| 2   | Manual Test Probe                | MXHS83QE3000          | 1    |
| 3   | Evaluation Board with Receptacle | MM8430-2610B with PCB | 1    |
| 4   | Instructional Guide              | n/a                   | 1    |

- The HSC series of Ultra Small Cable Connectors allows design engineers an easy method of interconnecting two points for microwave signals.
- Typical applications include cellular phones, WLAN products, wireless modules, notebook computers and measuring equipment
- Small size - 2.0 x 2.0 x 0.6mm (L x W x H)
- Maximum mating height - 1.2mm
- High durability for engagements: 30 cycles
- Wide selection of cable options available
- RoHS compliant

### HSC SERIES KIT M1KMM4829-HSC01

| No. | Description                      | Murata Global P/N     | Qty. |
|-----|----------------------------------|-----------------------|------|
| 1   | Board Mounted Receptacle         | MM4829-2702B          | 25   |
| 2   | MW Coaxial Cable - 100mm         | MXHP32HP1000          | 3    |
| 3   | MW Coaxial Cable - 200mm         | MXHP32XX2000          | 3    |
| 4   | MW Coaxial Cable - 300mm         | MXHP32HP3000          | 3    |
| 5   | Engage/Disengage Tool            | M19100                | 1    |
| 6   | Evaluation Board with Receptacle | MM4829-2702B with PCB | 1    |
| 7   | Instructional Guide              | n/a                   | 1    |

## SURFACE MOUNT EMI FILTERS

### EKEMBL03D

■ CHIP FERRITE BEADS  
01005 / 0201 SIZE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | BLM02AG100SN1 | 10   |
| 2   | BLM02AG700SN1 | 10   |
| 3   | BLM02AG121SN1 | 10   |
| 4   | BLM03AG100SN1 | 10   |
| 5   | BLM03AG700SN1 | 10   |
| 6   | BLM03AG800SN1 | 10   |
| 7   | BLM03AG121SN1 | 10   |
| 8   | BLM03AG241SN1 | 10   |
| 9   | BLM03AG601SN1 | 10   |
| 10  | BLM03AG102SN1 | 10   |
| 11  | BLM03BB100SN1 | 10   |
| 12  | BLM03BB220SN1 | 10   |
| 13  | BLM03BB470SN1 | 10   |
| 14  | BLM03BB750SN1 | 10   |
| 15  | BLM03BB121SN1 | 10   |
| 16  | BLM03BD750SN1 | 10   |
| 17  | BLM03BD121SN1 | 10   |
| 18  | BLM03BD241SN1 | 10   |
| 19  | BLM03PG220SN1 | 10   |
| 20  | BLM03PG330SN1 | 10   |

### EKEMBL15J

■ CHIP FERRITE BEADS  
0402 SIZE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | BLM15AG100SN1 | 10   |
| 2   | BLM15AG700SN1 | 10   |
| 3   | BLM15AG121SN1 | 10   |
| 4   | BLM15AG221SN1 | 10   |
| 5   | BLM15AG601SN1 | 10   |
| 6   | BLM15AG102SN1 | 10   |
| 7   | BLM15BA050SN1 | 10   |
| 8   | BLM15BA100SN1 | 10   |
| 9   | BLM15BA220SN1 | 10   |
| 10  | BLM15BA330SN1 | 10   |
| 11  | BLM15BA470SN1 | 10   |
| 12  | BLM15BA750SN1 | 10   |
| 13  | BLM15BB050SN1 | 10   |
| 14  | BLM15BB100SN1 | 10   |
| 15  | BLM15BB220SN1 | 10   |
| 16  | BLM15BB470SN1 | 10   |
| 17  | BLM15BB750SN1 | 10   |
| 18  | BLM15BB121SN1 | 10   |
| 19  | BLM15BB221SN1 | 10   |
| 20  | BLM15BD750SN1 | 10   |
| 21  | BLM15BD121SN1 | 10   |
| 22  | BLM15BD221SN1 | 10   |
| 23  | BLM15BD471SN1 | 10   |
| 24  | BLM15BD601SN1 | 10   |
| 25  | BLM15BD102SN1 | 10   |
| 26  | BLM15BD182SN1 | 10   |
| 27  | BLM15HD601SN1 | 10   |
| 28  | BLM15HD102SN1 | 10   |
| 29  | BLM15HD182SN1 | 10   |
| 30  | BLM15HG601SN1 | 10   |
| 31  | BLM15HG102SN1 | 10   |
| 32  | BLM15HB121SN1 | 10   |
| 33  | BLM15HB221SN1 | 10   |
| 34  | BLM15EG121SN1 | 10   |
| 35  | BLM15EG221SN1 | 10   |
| 36  | BLM15GG221SN1 | 10   |
| 37  | BLM15GG471SN1 | 10   |
| 38  | BLM15GA750SN1 | 10   |
| 39  | BLM15PG100SN1 | 10   |
| 40  | BLM15PD300SN1 | 10   |
| 41  | BLM15PD600SN1 | 10   |
| 42  | BLM15PD800SN1 | 10   |
| 43  | BLM15PD121SN1 | 10   |

### EKEMBL18G

■ CHIP FERRITE BEADS  
0603 SIZE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | BLM18AG121SN1 | 10   |
| 2   | BLM18AG151SN1 | 10   |
| 3   | BLM18AG221SN1 | 10   |
| 4   | BLM18AG331SN1 | 10   |
| 5   | BLM18AG471SN1 | 10   |
| 6   | BLM18AG601SN1 | 10   |
| 7   | BLM18AG102SN1 | 10   |
| 8   | BLM18BA050SN1 | 10   |
| 9   | BLM18BA100SN1 | 10   |
| 10  | BLM18BA470SN1 | 10   |
| 11  | BLM18BA750SN1 | 10   |
| 12  | BLM18BA121SN1 | 10   |
| 13  | BLM18BB050SN1 | 10   |
| 14  | BLM18BB100SN1 | 10   |
| 15  | BLM18BB220SN1 | 10   |
| 16  | BLM18BB470SN1 | 10   |
| 17  | BLM18BB600SN1 | 10   |
| 18  | BLM18BB750SN1 | 10   |
| 19  | BLM18BB121SN1 | 10   |
| 20  | BLM18BB151SN1 | 10   |
| 21  | BLM18BB221SN1 | 10   |
| 22  | BLM18BB331SN1 | 10   |
| 23  | BLM18BB471SN1 | 10   |
| 24  | BLM18BD470SN1 | 10   |
| 25  | BLM18BD121SN1 | 10   |
| 26  | BLM18BD151SN1 | 10   |
| 27  | BLM18BD221SN1 | 10   |
| 28  | BLM18BD331SN1 | 10   |
| 29  | BLM18BD421SN1 | 10   |
| 30  | BLM18BD471SN1 | 10   |
| 31  | BLM18BD601SN1 | 10   |
| 32  | BLM18BD102SN1 | 10   |
| 33  | BLM18BD152SN1 | 10   |
| 34  | BLM18BD182SN1 | 10   |
| 35  | BLM18BD222SN1 | 10   |
| 36  | BLM18BD252SN1 | 10   |
| 37  | BLM18PG300SN1 | 10   |
| 38  | BLM18PG330SN1 | 10   |
| 39  | BLM18PG600SN1 | 10   |
| 40  | BLM18PG121SN1 | 10   |
| 41  | BLM18PG181SN1 | 10   |
| 42  | BLM18PG221SN1 | 10   |
| 43  | BLM18PG331SN1 | 10   |
| 44  | BLM18PG471SN1 | 10   |
| 45  | BLM18KG260TN1 | 10   |
| 46  | BLM18KG700TN1 | 10   |
| 47  | BLM18KG121TN1 | 10   |
| 48  | BLM18KG221SN1 | 10   |
| 49  | BLM18KG331SN1 | 10   |
| 50  | BLM18KG471SN1 | 10   |
| 51  | BLM18KG601SN1 | 10   |
| 52  | BLM18SG260TN1 | 10   |
| 53  | BLM18SG700TN1 | 10   |
| 54  | BLM18SG121TN1 | 10   |
| 55  | BLM18SG221TN1 | 10   |
| 56  | BLM18SG331TN1 | 10   |
| 57  | BLM18RK121SN1 | 10   |
| 58  | BLM18RK471SN1 | 10   |
| 59  | BLM18RK601SN1 | 10   |
| 60  | BLM18RK102SN1 | 10   |

## SURFACE MOUNT EMI FILTERS

### EKEMBL8GA

■ CHIP FERRITE BEADS 0603  
FOR HIGH FREQUENCY TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | BLM18HG471SN1 | 10   |
| 2   | BLM18HG601SN1 | 10   |
| 3   | BLM18HG102SN1 | 10   |
| 4   | BLM18HB121SN1 | 10   |
| 5   | BLM18HB221SN1 | 10   |
| 6   | BLM18HB331SN1 | 10   |
| 7   | BLM18HD471SN1 | 10   |
| 8   | BLM18HD601SN1 | 10   |
| 9   | BLM18HD102SN1 | 10   |
| 10  | BLM18HE601SN1 | 10   |
| 11  | BLM18HE102SN1 | 10   |
| 12  | BLM18HE152SN1 | 10   |
| 13  | BLM18HK331SN1 | 10   |
| 14  | BLM18HK471SN1 | 10   |
| 15  | BLM18HK601SN1 | 10   |
| 16  | BLM18HK102SN1 | 10   |
| 17  | BLM18EG101TN1 | 10   |
| 18  | BLM18EG121SN1 | 10   |
| 19  | BLM18EG221TN1 | 10   |
| 20  | BLM18EG221SN1 | 10   |
| 21  | BLM18EG331TN1 | 10   |
| 22  | BLM18EG391TN1 | 10   |
| 23  | BLM18EG471SN1 | 10   |
| 24  | BLM18EG601SN1 | 10   |
| 25  | BLM18GG471SN1 | 10   |

### EKEMBL21D

■ CHIP FERRITE BEADS 0805, 1206, 1806  
FOR LARGE CURRENT P TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | BLM21AG121SN1 | 10   |
| 2   | BLM21AG151SN1 | 10   |
| 3   | BLM21AG221SN1 | 10   |
| 4   | BLM21AG331SN1 | 10   |
| 5   | BLM21AG471SN1 | 10   |
| 6   | BLM21AG601SN1 | 10   |
| 7   | BLM21AG102SN1 | 10   |
| 8   | BLM21BB050SN1 | 10   |
| 9   | BLM21BB600SN1 | 10   |
| 10  | BLM21BB750SN1 | 10   |
| 11  | BLM21BB121SN1 | 10   |
| 12  | BLM21BB221SN1 | 10   |
| 13  | BLM21BB331SN1 | 10   |
| 14  | BLM21BB471SN1 | 10   |
| 15  | BLM21BD121SN1 | 10   |
| 16  | BLM21BD221SN1 | 10   |
| 17  | BLM21BD421SN1 | 10   |
| 18  | BLM21BD471SN1 | 10   |
| 19  | BLM21BD601SN1 | 10   |
| 20  | BLM21BD102SN1 | 10   |
| 21  | BLM21BD152SN1 | 10   |
| 22  | BLM21BD182SN1 | 10   |
| 23  | BLM21BD222SN1 | 10   |
| 24  | BLM21BD222TN1 | 10   |
| 25  | BLM21BD272SN1 | 10   |
| 26  | BLM21PG220SN1 | 10   |
| 27  | BLM21PG300SN1 | 10   |
| 28  | BLM21PG600SN1 | 10   |
| 29  | BLM21PG221SN1 | 10   |
| 30  | BLM21PG331SN1 | 10   |
| 31  | BLM31PG330SN1 | 10   |
| 32  | BLM31PG500SN1 | 10   |
| 33  | BLM31PG121SN1 | 10   |
| 34  | BLM31PG391SN1 | 10   |
| 35  | BLM31PG601SN1 | 10   |
| 36  | BLM41PG600SN1 | 10   |
| 37  | BLM41PG750SN1 | 10   |
| 38  | BLM41PG181SN1 | 10   |
| 39  | BLM41PG471SN1 | 10   |
| 40  | BLM41PG102SN1 | 10   |

### EKEMNFMCB

■ CHIP EMIFIL® 0603, 0805 CAPACITOR  
TYPE FOR SIGNAL LINES

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | NFM18CC220U1C3 | 10   |
| 2   | NFM18CC470U1C3 | 10   |
| 3   | NFM18CC101R1C3 | 10   |
| 4   | NFM18CC221R1C3 | 10   |
| 5   | NFM18CC471R1C3 | 10   |
| 6   | NFM18CC102R1C3 | 10   |
| 7   | NFM18CC222R1C3 | 10   |
| 8   | NFM18CC223R1C3 | 10   |
| 9   | NFM21CC220U1H3 | 10   |
| 10  | NFM21CC470U1H3 | 10   |
| 11  | NFM21CC101U1H3 | 10   |
| 12  | NFM21CC221R1H3 | 10   |
| 13  | NFM21CC471R1H3 | 10   |
| 14  | NFM21CC102R1H3 | 10   |
| 15  | NFM21CC222R1H3 | 10   |
| 16  | NFM21CC223R1H3 | 10   |

### EKEMFA31D

■ CHIP EMIFIL® 1206 CAPACITOR ARRAY  
TYPE, RC COMBINED ARRAY TYPE

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | NFA31CC220S1E4 | 10   |
| 2   | NFA31CC470S1E4 | 10   |
| 3   | NFA31CC101S1E4 | 10   |
| 4   | NFA31CC221S1E4 | 10   |
| 5   | NFA31CC471R1E4 | 10   |
| 6   | NFA31CC102R1E4 | 10   |
| 7   | NFA31CC222R1E4 | 10   |
| 8   | NFA31CC223R1C4 | 10   |
| 9   | NFA31GD1006R84 | 10   |
| 10  | NFA31GD1004704 | 10   |
| 11  | NFA31GD1001014 | 10   |
| 12  | NFA31GD4706R84 | 10   |
| 13  | NFA31GD4703304 | 10   |
| 14  | NFA31GD4704704 | 10   |
| 15  | NFA31GD4701014 | 10   |
| 16  | NFA31GD1016R84 | 10   |
| 17  | NFA31GD1014704 | 10   |

## SURFACE MOUNT EMI FILTERS

### EKEMFL18E

■ CHIP EMIFIL® 0603, 0805, 1206  
LC COMBINED TYPE

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | NFL18ST207X1C3 | 10   |
| 2   | NFL18ST307X1C3 | 10   |
| 3   | NFL18ST507X1C3 | 10   |
| 4   | NFL18SP157X1A3 | 10   |
| 5   | NFL18SP207X1A3 | 10   |
| 6   | NFL18SP307X1A3 | 10   |
| 7   | NFL18SP507X1A3 | 10   |
| 8   | NFL21SP106X1C3 | 10   |
| 9   | NFL21SP206X1C7 | 10   |
| 10  | NFL21SP506X1C3 | 10   |
| 11  | NFL21SP706X1C3 | 10   |
| 12  | NFL21SP107X1C3 | 10   |
| 13  | NFL21SP157X1C3 | 10   |
| 14  | NFL21SP207X1C3 | 10   |
| 15  | NFL21SP307X1C3 | 10   |
| 16  | NFL21SP407X1C3 | 10   |
| 17  | NFL21SP507X1C3 | 10   |
| 18  | NFW31SP106X1E4 | 10   |
| 19  | NFW31SP206X1E4 | 10   |
| 20  | NFW31SP506X1E4 | 10   |
| 21  | NFW31SP107X1E4 | 10   |
| 22  | NFW31SP157X1E4 | 10   |
| 23  | NFW31SP207X1E4 | 10   |
| 24  | NFW31SP307X1E4 | 10   |
| 25  | NFW31SP407X1E4 | 10   |
| 26  | NFW31SP507X1E4 | 10   |

### EKEMFA20E

■ CHIP EMIFIL® LC COMBINED ARRAY  
TYPE

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | NFA18SL137V1A45 | 10   |
| 2   | NFA18SL187V1A45 | 10   |
| 3   | NFA18SL207V1A45 | 10   |
| 4   | NFA18SL307V1A45 | 10   |
| 5   | NFA18SL407V1A45 | 10   |
| 6   | NFA18SL487V1A45 | 10   |
| 7   | NFA21SL506X1A48 | 10   |
| 8   | NFA21SL806X1A48 | 10   |
| 9   | NFA21SL207X1A45 | 10   |
| 10  | NFA21SL207X1A48 | 10   |
| 11  | NFA21SL307X1A45 | 10   |
| 12  | NFA21SL307X1A48 | 10   |
| 13  | NFA21SL287V1A45 | 10   |
| 14  | NFA21SL287V1A48 | 10   |
| 15  | NFA21SL317V1A45 | 10   |
| 16  | NFA21SL317V1A48 | 10   |
| 17  | NFA21SL337V1A45 | 10   |
| 18  | NFA21SL337V1A48 | 10   |

### EKEMNFMPH

■ CHIP EMIFIL® 0603, 0805, 1206, 1806  
FOR LARGE CURRENT

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | NFM18PC104R1C3 | 10   |
| 2   | NFM18PC224R0J3 | 10   |
| 3   | NFM18PC474R0J3 | 10   |
| 4   | NFM18PC105R0J3 | 10   |
| 5   | NFM18PC225B0J3 | 10   |
| 6   | NFM18PC225B1A3 | 10   |
| 7   | NFM18PS474R0J3 | 10   |
| 8   | NFM18PS105R0J3 | 10   |
| 9   | NFM21PC104R1E3 | 10   |
| 10  | NFM21PC224R1C3 | 10   |
| 11  | NFM21PC474R1C3 | 10   |
| 12  | NFM21PC105B1A3 | 10   |
| 13  | NFM21PC105B1C3 | 10   |
| 14  | NFM21PC225B0J3 | 10   |
| 15  | NFM21PC475B1A3 | 10   |
| 16  | NFE31PC276B0J3 | 10   |
| 17  | NFE31PT152Z1E9 | 10   |
| 18  | NFE31PT222Z1E9 | 10   |
| 19  | NFE61PT102E1H9 | 10   |
| 20  | NFE61PT472C1H9 | 10   |
| 21  | NFM41PC204F1H3 | 10   |
| 22  | NFM41PC155B1E3 | 10   |

### EKEMDL21J

■ CHIP COMMON MODE 0805, 1206  
CHOKE COILS

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | DLW21HN670SQ2 | 10   |
| 2   | DLW21HN900SQ2 | 10   |
| 3   | DLW21HN121SQ2 | 10   |
| 4   | DLW21HN181SQ2 | 10   |
| 5   | DLW21SN670SQ2 | 10   |
| 6   | DLW21SN900SQ2 | 10   |
| 7   | DLW21SN121SQ2 | 10   |
| 8   | DLW21SN181SQ2 | 10   |
| 9   | DLW21SN261SQ2 | 10   |
| 10  | DLW21SN371SQ2 | 10   |
| 11  | DLW21SN670HQ2 | 10   |
| 12  | DLW21SN900HQ2 | 10   |
| 13  | DLW21SN121HQ2 | 10   |
| 14  | DLW21SR670HQ2 | 10   |
| 15  | DLP0NSN670HL2 | 10   |
| 16  | DLP0NSN900HL2 | 10   |
| 17  | DLP0NSN121HL2 | 10   |
| 18  | DLP11SN670SL2 | 10   |
| 19  | DLP11SN121SL2 | 10   |
| 20  | DLP11SN161SL2 | 10   |
| 21  | DLP11SN900HL2 | 10   |
| 22  | DLP11SN201HL2 | 10   |
| 23  | DLP11SN241HL2 | 10   |
| 24  | DLP11SN281HL2 | 10   |
| 25  | DLP11SN331HL2 | 10   |
| 26  | DLP11SA350HL2 | 10   |
| 27  | DLP11SA670HL2 | 10   |
| 28  | DLP11SA900HL2 | 10   |
| 29  | DLP2ADN670HL4 | 10   |
| 30  | DLP2ADN900HL4 | 10   |
| 31  | DLP2ADN121HL4 | 10   |
| 32  | DLP2ADN161HL4 | 10   |
| 33  | DLP2ADN201HL4 | 10   |
| 34  | DLP2ADN241HL4 | 10   |
| 35  | DLP2ADN281HL4 | 10   |

### EKEMDCC5B

■ CHIP COMMON MODE CHOKE COILS  
5.0 x 5.0mm, 5.0 x 3.6mm FOR  
DC POWER LINE / SMD BLOCK TYPE  
EMIFIL® FOR POWER LINE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | DLW5AHN402SQ2 | 5    |
| 2   | DLW5BSN191SQ2 | 5    |
| 3   | DLW5BSN351SQ2 | 5    |
| 4   | DLW5BSN102SQ2 | 5    |
| 5   | DLW5BSN152SQ2 | 5    |
| 6   | DLW5BSN302SQ2 | 5    |
| 7   | DLW5BTN101SQ2 | 5    |
| 8   | DLW5BTN251SQ2 | 5    |
| 9   | DLW5BTN501SQ2 | 5    |
| 10  | DLW5BTN102SQ2 | 5    |
| 11  | DLW5BTN142SQ2 | 5    |
| 12  | BNX022-01     | 5    |
| 13  | BNX023-01     | 5    |

## SURFACE MOUNT INDUCTORS

### EKLMQ15SC

■ SURFACE MOUNT 0402  
HIGH FREQUENCY MONOLITHIC TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQG15HS1N0S02 | 10   |
| 2   | LQG15HS1N1S02 | 10   |
| 3   | LQG15HS1N2S02 | 10   |
| 4   | LQG15HS1N3S02 | 10   |
| 5   | LQG15HS1N5S02 | 10   |
| 6   | LQG15HS1N6S02 | 10   |
| 7   | LQG15HS1N8S02 | 10   |
| 8   | LQG15HS2N0S02 | 10   |
| 9   | LQG15HS2N2S02 | 10   |
| 10  | LQG15HS2N4S02 | 10   |
| 11  | LQG15HS2N7S02 | 10   |
| 12  | LQG15HS3N0S02 | 10   |
| 13  | LQG15HS3N3S02 | 10   |
| 14  | LQG15HS3N6S02 | 10   |
| 15  | LQG15HS3N9S02 | 10   |
| 16  | LQG15HS4N3S02 | 10   |
| 17  | LQG15HS4N7S02 | 10   |
| 18  | LQG15HS5N1S02 | 10   |
| 19  | LQG15HS5N6S02 | 10   |
| 20  | LQG15HS6N2S02 | 10   |
| 21  | LQG15HS6N8J02 | 10   |
| 22  | LQG15HS7N5J02 | 10   |
| 23  | LQG15HS8N2J02 | 10   |
| 24  | LQG15HS9N1J02 | 10   |
| 25  | LQG15HS10NJ02 | 10   |
| 26  | LQG15HS12NJ02 | 10   |
| 27  | LQG15HS15NJ02 | 10   |
| 28  | LQG15HS18NJ02 | 10   |
| 29  | LQG15HS22NJ02 | 10   |
| 30  | LQG15HS27NJ02 | 10   |
| 31  | LQG15HS33NJ02 | 10   |
| 32  | LQG15HS39NJ02 | 10   |
| 33  | LQG15HS47NJ02 | 10   |
| 34  | LQG15HS56NJ02 | 10   |
| 35  | LQG15HS68NJ02 | 10   |
| 36  | LQG15HS82NJ02 | 10   |
| 37  | LQG15HSR10J02 | 10   |
| 38  | LQG15HSR12J02 | 10   |
| 39  | LQG15HSR15J02 | 10   |
| 40  | LQG15HSR18J02 | 10   |
| 41  | LQG15HSR22J02 | 10   |
| 42  | LQG15HSR27J02 | 10   |

### EKLMQG18B

■ SURFACE MOUNT 0603  
HIGH FREQUENCY MONOLITHIC TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQG18HN1N2S00 | 10   |
| 2   | LQG18HN1N5S00 | 10   |
| 3   | LQG18HN1N8S00 | 10   |
| 4   | LQG18HN2N2S00 | 10   |
| 5   | LQG18HN2N7S00 | 10   |
| 6   | LQG18HN3N3S00 | 10   |
| 7   | LQG18HN3N9S00 | 10   |
| 8   | LQG18HN4N7S00 | 10   |
| 9   | LQG18HN5N6S00 | 10   |
| 10  | LQG18HN6N8J00 | 10   |
| 11  | LQG18HN8N2J00 | 10   |
| 12  | LQG18HN10NJ00 | 10   |
| 13  | LQG18HN12NJ00 | 10   |
| 14  | LQG18HN15NJ00 | 10   |
| 15  | LQG18HN18NJ00 | 10   |
| 16  | LQG18HN22NJ00 | 10   |
| 17  | LQG18HN27NJ00 | 10   |
| 18  | LQG18HN33NJ00 | 10   |
| 19  | LQG18HN39NJ00 | 10   |
| 20  | LQG18HN47NJ00 | 10   |
| 21  | LQG18HN56NJ00 | 10   |
| 22  | LQG18HN68NJ00 | 10   |
| 23  | LQG18HN82NJ00 | 10   |
| 24  | LQG18HNR10J00 | 10   |

### EKLMQP02B

■ SURFACE MOUNT 01005  
HIGH FREQUENCY FILM TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQP02TN0N4S02 | 10   |
| 2   | LQP02TN0N5S02 | 10   |
| 3   | LQP02TN0N6S02 | 10   |
| 4   | LQP02TN0N7S02 | 10   |
| 5   | LQP02TN0N8S02 | 10   |
| 6   | LQP02TN0N9S02 | 10   |
| 7   | LQP02TN1N0S02 | 10   |
| 8   | LQP02TN1N1S02 | 10   |
| 9   | LQP02TN1N2S02 | 10   |
| 10  | LQP02TN1N3S02 | 10   |
| 11  | LQP02TN1N5S02 | 10   |
| 12  | LQP02TN1N6S02 | 10   |
| 13  | LQP02TN1N8S02 | 10   |
| 14  | LQP02TN2N0S02 | 10   |
| 15  | LQP02TN2N2S02 | 10   |
| 16  | LQP02TN2N4S02 | 10   |
| 17  | LQP02TN2N7S02 | 10   |
| 18  | LQP02TN3N0S02 | 10   |
| 19  | LQP02TN3N3S02 | 10   |
| 20  | LQP02TN3N6S02 | 10   |
| 21  | LQP02TN3N9S02 | 10   |
| 22  | LQP02TN4N3S02 | 10   |
| 23  | LQP02TN4N7S02 | 10   |
| 24  | LQP02TN5N1S02 | 10   |
| 25  | LQP02TN5N6S02 | 10   |
| 26  | LQP02TN6N2J02 | 10   |
| 27  | LQP02TN6N8J02 | 10   |
| 28  | LQP02TN7N5J02 | 10   |
| 29  | LQP02TN8N2J02 | 10   |
| 30  | LQP02TN9N1J02 | 10   |
| 31  | LQP02TN10NJ02 | 10   |

## SURFACE MOUNT INDUCTORS

### EKLMQP03J

■ SURFACE MOUNT 0201  
HIGH FREQUENCY FILM TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQP03TN0N6B00 | 10   |
| 2   | LQP03TN1N0B00 | 10   |
| 3   | LQP03TN1N1B00 | 10   |
| 4   | LQP03TN1N2B00 | 10   |
| 5   | LQP03TN1N3B00 | 10   |
| 6   | LQP03TN1N4B00 | 10   |
| 7   | LQP03TN1N5B00 | 10   |
| 8   | LQP03TN1N6B00 | 10   |
| 9   | LQP03TN1N7B00 | 10   |
| 10  | LQP03TN1N8B00 | 10   |
| 11  | LQP03TN1N9B00 | 10   |
| 12  | LQP03TN2N0B00 | 10   |
| 13  | LQP03TN2N1B00 | 10   |
| 14  | LQP03TN2N2B00 | 10   |
| 15  | LQP03TN2N3B00 | 10   |
| 16  | LQP03TN2N4B00 | 10   |
| 17  | LQP03TN2N5B00 | 10   |
| 18  | LQP03TN2N6B00 | 10   |
| 19  | LQP03TN2N7B00 | 10   |
| 20  | LQP03TN2N8B00 | 10   |
| 21  | LQP03TN2N9B00 | 10   |
| 22  | LQP03TN3N0B00 | 10   |
| 23  | LQP03TN3N1B00 | 10   |
| 24  | LQP03TN3N2B00 | 10   |
| 25  | LQP03TN3N3B00 | 10   |
| 26  | LQP03TN3N4B00 | 10   |
| 27  | LQP03TN3N5B00 | 10   |
| 28  | LQP03TN3N6B00 | 10   |
| 29  | LQP03TN3N7B00 | 10   |
| 30  | LQP03TN3N8B00 | 10   |
| 31  | LQP03TN3N9B00 | 10   |
| 32  | LQP03TN4N3H00 | 10   |
| 33  | LQP03TN4N7H00 | 10   |
| 34  | LQP03TN5N1H00 | 10   |
| 35  | LQP03TN5N6H00 | 10   |
| 36  | LQP03TN6N2H00 | 10   |
| 37  | LQP03TN6N8H00 | 10   |
| 38  | LQP03TN7N5H00 | 10   |
| 39  | LQP03TN8N2H00 | 10   |
| 40  | LQP03TN9N1H00 | 10   |
| 41  | LQP03TN10NH00 | 10   |
| 42  | LQP03TN12NH00 | 10   |
| 43  | LQP03TN15NH00 | 10   |
| 44  | LQP03TN18NH00 | 10   |
| 45  | LQP03TN22NH00 | 10   |
| 46  | LQP03TN27NH00 | 10   |
| 47  | LQP03TN33NJ00 | 10   |
| 48  | LQP03TN39NJ00 | 10   |
| 49  | LQP03TN47NJ00 | 10   |
| 50  | LQP03TN56NJ00 | 10   |
| 51  | LQP03TN68NJ02 | 10   |
| 52  | LQP03TN82NJ02 | 10   |
| 53  | LQP03TNR10J02 | 10   |
| 54  | LQP03TNR12J02 | 10   |

### EKLMQP15B

■ SURFACE MOUNT 0402  
HIGH FREQUENCY FILM TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQP15MN1N0B02 | 10   |
| 2   | LQP15MN1N1B02 | 10   |
| 3   | LQP15MN1N2B02 | 10   |
| 4   | LQP15MN1N3B02 | 10   |
| 5   | LQP15MN1N5B02 | 10   |
| 6   | LQP15MN1N6B02 | 10   |
| 7   | LQP15MN1N8B02 | 10   |
| 8   | LQP15MN2N0B02 | 10   |
| 9   | LQP15MN2N2B02 | 10   |
| 10  | LQP15MN2N4B02 | 10   |
| 11  | LQP15MN2N7B02 | 10   |
| 12  | LQP15MN3N0B02 | 10   |
| 13  | LQP15MN3N3B02 | 10   |
| 14  | LQP15MN3N6B02 | 10   |
| 15  | LQP15MN3N9B02 | 10   |
| 16  | LQP15MN4N3B02 | 10   |
| 17  | LQP15MN4N7B02 | 10   |
| 18  | LQP15MN5N1B02 | 10   |
| 19  | LQP15MN5N6B02 | 10   |
| 20  | LQP15MN6N2B02 | 10   |
| 21  | LQP15MN6N8B02 | 10   |
| 22  | LQP15MN7N5B02 | 10   |
| 23  | LQP15MN8N2B02 | 10   |
| 24  | LQP15MN9N1B02 | 10   |
| 25  | LQP15MN10NG02 | 10   |
| 26  | LQP15MN12NG02 | 10   |
| 27  | LQP15MN15NG02 | 10   |
| 28  | LQP15MN18NG02 | 10   |
| 29  | LQP15MN22NG02 | 10   |
| 30  | LQP15MN27NG02 | 10   |
| 31  | LQP15MN33NG02 | 10   |

### EKLMQW04C

■ SURFACE MOUNT 03015  
HIGH FREQUENCY WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQW04AN1N1C00 | 10   |
| 2   | LQW04AN1N8C00 | 10   |
| 3   | LQW04AN2N7C00 | 10   |
| 4   | LQW04AN3N0C00 | 10   |
| 5   | LQW04AN3N6C00 | 10   |
| 6   | LQW04AN3N9C00 | 10   |
| 7   | LQW04AN4N3C00 | 10   |
| 8   | LQW04AN4N7C00 | 10   |
| 9   | LQW04AN5N1C00 | 10   |
| 10  | LQW04AN5N6C00 | 10   |
| 11  | LQW04AN6N2C00 | 10   |
| 12  | LQW04AN6N8C00 | 10   |
| 13  | LQW04AN7N5C00 | 10   |
| 14  | LQW04AN8N2C00 | 10   |
| 15  | LQW04AN9N1C00 | 10   |
| 16  | LQW04AN10NH00 | 10   |
| 17  | LQW04AN11NH00 | 10   |
| 18  | LQW04AN12NH00 | 10   |
| 19  | LQW04AN13NH00 | 10   |
| 20  | LQW04AN15NH00 | 10   |
| 21  | LQW04AN16NH00 | 10   |
| 22  | LQW04AN18NH00 | 10   |
| 23  | LQW04AN19NH00 | 10   |
| 24  | LQW04AN20NH00 | 10   |
| 25  | LQW04AN22NH00 | 10   |
| 26  | LQW04AN23NH00 | 10   |
| 27  | LQW04AN24NH00 | 10   |
| 28  | LQW04AN25NH00 | 10   |
| 29  | LQW04AN27NH00 | 10   |
| 30  | LQW04AN33NH00 | 10   |



## SURFACE MOUNT INDUCTORS

### EKLMQW15H

■ SURFACE MOUNT 0402  
HIGH FREQUENCY WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQW15AN1N3C10 | 10   |
| 2   | LQW15AN1N5B00 | 10   |
| 3   | LQW15AN2N2C10 | 10   |
| 4   | LQW15AN2N4B00 | 10   |
| 5   | LQW15AN2N5B00 | 10   |
| 6   | LQW15AN2N7B00 | 10   |
| 7   | LQW15AN2N9B00 | 10   |
| 8   | LQW15AN3N3D10 | 10   |
| 9   | LQW15AN3N4C10 | 10   |
| 10  | LQW15AN3N6C10 | 10   |
| 11  | LQW15AN3N9B00 | 10   |
| 12  | LQW15AN4N1B00 | 10   |
| 13  | LQW15AN4N3B00 | 10   |
| 14  | LQW15AN4N7B00 | 10   |
| 15  | LQW15AN5N1B00 | 10   |
| 16  | LQW15AN5N6C10 | 10   |
| 17  | LQW15AN5N8B00 | 10   |
| 18  | LQW15AN6N2B00 | 10   |
| 19  | LQW15AN6N8G00 | 10   |
| 20  | LQW15AN7N3G00 | 10   |
| 21  | LQW15AN7N5G00 | 10   |
| 22  | LQW15AN8N2G00 | 10   |
| 23  | LQW15AN8N7G00 | 10   |
| 24  | LQW15AN9N1G00 | 10   |
| 25  | LQW15AN9N5G00 | 10   |
| 26  | LQW15AN10NG00 | 10   |
| 27  | LQW15AN11NG00 | 10   |
| 28  | LQW15AN12NG00 | 10   |
| 29  | LQW15AN13NG00 | 10   |
| 30  | LQW15AN15NG00 | 10   |
| 31  | LQW15AN16NG00 | 10   |
| 32  | LQW15AN18NG00 | 10   |
| 33  | LQW15AN19NG00 | 10   |
| 34  | LQW15AN20NG00 | 10   |
| 35  | LQW15AN22NG00 | 10   |
| 36  | LQW15AN23NG00 | 10   |
| 37  | LQW15AN24NG00 | 10   |
| 38  | LQW15AN27NG00 | 10   |
| 39  | LQW15AN30NG00 | 10   |
| 40  | LQW15AN33NG00 | 10   |
| 41  | LQW15AN36NG00 | 10   |
| 42  | LQW15AN39NG00 | 10   |
| 43  | LQW15AN40NG00 | 10   |
| 44  | LQW15AN43NG00 | 10   |
| 45  | LQW15AN47NG00 | 10   |
| 46  | LQW15AN51NG00 | 10   |
| 47  | LQW15AN56NG00 | 10   |
| 48  | LQW15AN62NG00 | 10   |
| 49  | LQW15AN68NG00 | 10   |
| 50  | LQW15AN75NG00 | 10   |
| 51  | LQW15AN82NG00 | 10   |
| 52  | LQW15AN91NG00 | 10   |
| 53  | LQW15ANR10J00 | 10   |
| 54  | LQW15ANR12J00 | 10   |

### EKLMQ18GB

■ SURFACE MOUNT 0603 TIGHT  
TOLERANCE HIGH FREQUENCY WIRE  
WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQW18AN3N6C00 | 10   |
| 2   | LQW18AN3N9C00 | 10   |
| 3   | LQW18AN4N3C00 | 10   |
| 4   | LQW18AN5N6C00 | 10   |
| 5   | LQW18AN6N2C00 | 10   |
| 6   | LQW18AN6N8C00 | 10   |
| 7   | LQW18AN10NG00 | 10   |
| 8   | LQW18AN11NG00 | 10   |
| 9   | LQW18AN12NG00 | 10   |
| 10  | LQW18AN13NG00 | 10   |
| 11  | LQW18AN15NG00 | 10   |
| 12  | LQW18AN16NG00 | 10   |
| 13  | LQW18AN18NG00 | 10   |
| 14  | LQW18AN20NG00 | 10   |
| 15  | LQW18AN22NG00 | 10   |
| 16  | LQW18AN24NG00 | 10   |
| 17  | LQW18AN27NG00 | 10   |
| 18  | LQW18AN30NG00 | 10   |
| 19  | LQW18AN33NG00 | 10   |
| 20  | LQW18AN36NG00 | 10   |
| 21  | LQW18AN39NG00 | 10   |
| 22  | LQW18AN43NG00 | 10   |
| 23  | LQW18AN47NG00 | 10   |
| 24  | LQW18AN51NG00 | 10   |
| 25  | LQW18AN56NG00 | 10   |
| 26  | LQW18AN62NG00 | 10   |
| 27  | LQW18AN68NG00 | 10   |
| 28  | LQW18AN72NG00 | 10   |
| 29  | LQW18AN75NG00 | 10   |
| 30  | LQW18AN82NG00 | 10   |
| 31  | LQW18AN91NG00 | 10   |
| 32  | LQW18ANR10G00 | 10   |
| 33  | LQW18ANR11G00 | 10   |
| 34  | LQW18ANR12G00 | 10   |
| 35  | LQW18ANR13G00 | 10   |
| 36  | LQW18ANR15G00 | 10   |
| 37  | LQW18ANR16G00 | 10   |
| 38  | LQW18ANR18G00 | 10   |
| 39  | LQW18ANR20G00 | 10   |
| 40  | LQW18ANR22G00 | 10   |
| 41  | LQW18ANR27G00 | 10   |
| 42  | LQW18ANR33G00 | 10   |
| 43  | LQW18ANR39G00 | 10   |
| 44  | LQW18ANR47G00 | 10   |
| 45  | LQW18AN3N9C10 | 10   |
| 46  | LQW18AN6N8C10 | 10   |
| 47  | LQW18AN10NG10 | 10   |
| 48  | LQW18AN12NG10 | 10   |
| 49  | LQW18AN18NG10 | 10   |
| 50  | LQW18AN22NG10 | 10   |
| 51  | LQW18AN27NG10 | 10   |

### EKLMQ18JB

■ SURFACE MOUNT 0603  
HIGH FREQUENCY WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQW18AN2N2D10 | 10   |
| 2   | LQW18AN3N6D00 | 10   |
| 3   | LQW18AN3N9D10 | 10   |
| 4   | LQW18AN4N3D00 | 10   |
| 5   | LQW18AN4N7D00 | 10   |
| 6   | LQW18AN5N6D10 | 10   |
| 7   | LQW18AN6N2D00 | 10   |
| 8   | LQW18AN6N8D10 | 10   |
| 9   | LQW18AN7N5D00 | 10   |
| 10  | LQW18AN8N2D10 | 10   |
| 11  | LQW18AN8N7D00 | 10   |
| 12  | LQW18AN9N1D00 | 10   |
| 13  | LQW18AN9N5D00 | 10   |
| 14  | LQW18AN10NJ10 | 10   |
| 15  | LQW18AN11NJ00 | 10   |
| 16  | LQW18AN12NJ10 | 10   |
| 17  | LQW18AN13NJ00 | 10   |
| 18  | LQW18AN15NJ10 | 10   |
| 19  | LQW18AN16NJ00 | 10   |
| 20  | LQW18AN18NJ10 | 10   |
| 21  | LQW18AN20NJ00 | 10   |
| 22  | LQW18AN22NJ10 | 10   |
| 23  | LQW18AN24NJ00 | 10   |
| 24  | LQW18AN27NJ10 | 10   |
| 25  | LQW18AN30NJ00 | 10   |
| 26  | LQW18AN33NJ10 | 10   |
| 27  | LQW18AN36NJ00 | 10   |
| 28  | LQW18AN39NJ00 | 10   |
| 29  | LQW18AN43NJ00 | 10   |
| 30  | LQW18AN47NJ00 | 10   |
| 31  | LQW18AN51NJ00 | 10   |
| 32  | LQW18AN56NJ00 | 10   |
| 33  | LQW18AN62NJ00 | 10   |
| 34  | LQW18AN68NJ00 | 10   |
| 35  | LQW18AN72NJ00 | 10   |
| 36  | LQW18AN75NJ00 | 10   |
| 37  | LQW18AN82NJ00 | 10   |
| 38  | LQW18AN91NJ00 | 10   |
| 39  | LQW18ANR10J00 | 10   |
| 40  | LQW18ANR11J00 | 10   |
| 41  | LQW18ANR12J00 | 10   |
| 42  | LQW18ANR13J00 | 10   |
| 43  | LQW18ANR15J00 | 10   |
| 44  | LQW18ANR16J00 | 10   |
| 45  | LQW18ANR18J00 | 10   |
| 46  | LQW18ANR20J00 | 10   |
| 47  | LQW18ANR22J00 | 10   |
| 48  | LQW18ANR27J00 | 10   |
| 49  | LQW18ANR33J00 | 10   |
| 50  | LQW18ANR39J00 | 10   |
| 51  | LQW18ANR47J00 | 10   |

## SURFACE MOUNT INDUCTORS

### EKLMQW21A

■ SURFACE MOUNT 0805 HIGH  
FREQUENCY WIRE WOUND FERRITE TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQW21HNR47J00 | 10   |
| 2   | LQW21HNR56J00 | 10   |
| 3   | LQW21HNR68J00 | 10   |
| 4   | LQW21HNR82J00 | 10   |
| 5   | LQW21HN1R0J00 | 10   |
| 6   | LQW21HN1R2J00 | 10   |
| 7   | LQW21HN1R5J00 | 10   |
| 8   | LQW21HN1R8J00 | 10   |
| 9   | LQW21HN2R2J00 | 10   |

### EKLMQW2BB

■ SURFACE MOUNT 0805 HIGH  
FREQUENCY WIRE WOUND AIR CORE  
TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQW2BHN2N7D13 | 10   |
| 2   | LQW2BHN3N1D13 | 10   |
| 3   | LQW2BHN3N3D13 | 10   |
| 4   | LQW2BHN5N6D13 | 10   |
| 5   | LQW2BHN6N8D13 | 10   |
| 6   | LQW2BHN8N6D13 | 10   |
| 7   | LQW2BHN10NJ13 | 10   |
| 8   | LQW2BHN12NK13 | 10   |
| 9   | LQW2BHN15NK13 | 10   |
| 10  | LQW2BHN18NK13 | 10   |
| 11  | LQW2BHN21NK13 | 10   |
| 12  | LQW2BHN27NK13 | 10   |
| 13  | LQW2BHN33NJ03 | 10   |
| 14  | LQW2BHN39NJ03 | 10   |
| 15  | LQW2BHN47NJ03 | 10   |
| 16  | LQW2BHN56NJ03 | 10   |
| 17  | LQW2BHN68NJ03 | 10   |
| 18  | LQW2BHN82NJ03 | 10   |
| 19  | LQW2BHNR10J03 | 10   |
| 20  | LQW2BHNR12J03 | 10   |
| 21  | LQW2BHNR15J03 | 10   |
| 22  | LQW2BHNR18J03 | 10   |
| 23  | LQW2BHNR22J03 | 10   |
| 24  | LQW2BHNR27K03 | 10   |
| 25  | LQW2BHNR33K03 | 10   |
| 26  | LQW2BHNR39K03 | 10   |
| 27  | LQW2BHNR47K03 | 10   |

### EKLMQM18B

■ SURFACE MOUNT 0603 GENERAL USE  
MONOLITHIC TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQM18NN47NM00 | 10   |
| 2   | LQM18NN68NM00 | 10   |
| 3   | LQM18NN82NM00 | 10   |
| 4   | LQM18NNR10K00 | 10   |
| 5   | LQM18NNR12K00 | 10   |
| 6   | LQM18NNR15K00 | 10   |
| 7   | LQM18NNR18K00 | 10   |
| 8   | LQM18NNR22K00 | 10   |
| 9   | LQM18NNR27K00 | 10   |
| 10  | LQM18NNR33K00 | 10   |
| 11  | LQM18NNR39K00 | 10   |
| 12  | LQM18NNR47K00 | 10   |
| 13  | LQM18NNR56K00 | 10   |
| 14  | LQM18NNR68K00 | 10   |
| 15  | LQM18NNR82K00 | 10   |
| 16  | LQM18NN1R0K00 | 10   |
| 17  | LQM18NN1R2K00 | 10   |
| 18  | LQM18NN1R5K00 | 10   |
| 19  | LQM18NN1R8K00 | 10   |
| 20  | LQM18NN2R2K00 | 10   |

### EKLMM21NB

■ SURFACE MOUNT 0805 GENERAL USE  
MONOLITHIC TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQM21NNR10K10 | 10   |
| 2   | LQM21NNR12K10 | 10   |
| 3   | LQM21NNR15K10 | 10   |
| 4   | LQM21NNR18K10 | 10   |
| 5   | LQM21NNR22K10 | 10   |
| 6   | LQM21NNR27K10 | 10   |
| 7   | LQM21NNR33K10 | 10   |
| 8   | LQM21NNR39K10 | 10   |
| 9   | LQM21NNR47K10 | 10   |
| 10  | LQM21NNR56K10 | 10   |
| 11  | LQM21NNR68K10 | 10   |
| 12  | LQM21NNR82K10 | 10   |
| 13  | LQM21NN1R0K10 | 10   |
| 14  | LQM21NN1R2K10 | 10   |
| 15  | LQM21NN1R5K10 | 10   |
| 16  | LQM21NN1R8K10 | 10   |
| 17  | LQM21NN2R2K10 | 10   |
| 18  | LQM21NN2R7K10 | 10   |
| 19  | LQM21NN3R3K10 | 10   |
| 20  | LQM21NN3R9K10 | 10   |
| 21  | LQM21NN4R7K10 | 10   |

### EKLMMH32MC

■ SURFACE MOUNT 1210 GENERAL USE  
WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQH32MN1R0M23 | 10   |
| 2   | LQH32MN1R2M23 | 10   |
| 3   | LQH32MN1R5K23 | 10   |
| 4   | LQH32MN1R8K23 | 10   |
| 5   | LQH32MN2R2K23 | 10   |
| 6   | LQH32MN2R7K23 | 10   |
| 7   | LQH32MN3R3K23 | 10   |
| 8   | LQH32MN3R9K23 | 10   |
| 9   | LQH32MN4R7K23 | 10   |
| 10  | LQH32MN5R6K23 | 10   |
| 11  | LQH32MN6R8K23 | 10   |
| 12  | LQH32MN8R2K23 | 10   |
| 13  | LQH32MN100K23 | 10   |
| 14  | LQH32MN120K23 | 10   |
| 15  | LQH32MN150K23 | 10   |
| 16  | LQH32MN180K23 | 10   |
| 17  | LQH32MN220K23 | 10   |
| 18  | LQH32MN270K23 | 10   |
| 19  | LQH32MN330K23 | 10   |
| 20  | LQH32MN390K23 | 10   |
| 21  | LQH32MN470K23 | 10   |
| 22  | LQH32MN560K23 | 10   |
| 23  | LQH32MN680K23 | 10   |
| 24  | LQH32MN820K23 | 10   |
| 25  | LQH32MN101K23 | 10   |
| 26  | LQH32MN121K23 | 10   |
| 27  | LQH32MN151K23 | 10   |
| 28  | LQH32MN181K23 | 10   |
| 29  | LQH32MN221K23 | 10   |
| 30  | LQH32MN271K23 | 10   |
| 31  | LQH32MN331K23 | 10   |
| 32  | LQH32MN391K23 | 10   |
| 33  | LQH32MN471K23 | 10   |
| 34  | LQH32MN561K23 | 10   |

## SURFACE MOUNT INDUCTORS

### EKLMH43MB

■ SURFACE MOUNT 1812 GENERAL USE WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQH43MN1R0M03 | 10   |
| 2   | LQH43MN1R2M03 | 10   |
| 3   | LQH43MN1R5M03 | 10   |
| 4   | LQH43MN1R8M03 | 10   |
| 5   | LQJ43MN2R2M03 | 10   |
| 6   | LQH43MN2R7M03 | 10   |
| 7   | LQH43MN3R3M03 | 10   |
| 8   | LQH43MN3R9M03 | 10   |
| 9   | LQH43MN4R7K03 | 10   |
| 10  | LQH43MN5R6K03 | 10   |
| 11  | LQH43MN6R8K03 | 10   |
| 12  | LQH43MN8R2K03 | 10   |
| 13  | LQH43MN100K03 | 10   |
| 14  | LQH43MN120K03 | 10   |
| 15  | LQH43MN150K03 | 10   |
| 16  | LQH43MN180K03 | 10   |
| 17  | LQH43MN220K03 | 10   |
| 18  | LQH43MN270K03 | 10   |
| 19  | LQH43MN330K03 | 10   |
| 20  | LQH43MN390K03 | 10   |
| 21  | LQH43MN470K03 | 10   |
| 22  | LQH43MN560K03 | 10   |
| 23  | LQH43MN680K03 | 10   |
| 24  | LQH43MN820K03 | 10   |
| 25  | LQH43MN101K03 | 10   |
| 26  | LQH43MN121K03 | 10   |
| 27  | LQH43MN151K03 | 10   |
| 28  | LQH43MN181K03 | 10   |
| 29  | LQH43MN221K03 | 10   |
| 30  | LQH43MN271K03 | 10   |
| 31  | LQH43MN331K03 | 10   |
| 32  | LQH43MN391K03 | 10   |
| 33  | LQH43MN471K03 | 10   |
| 34  | LQH43MN561K03 | 10   |
| 35  | LQH43MN681K03 | 10   |
| 36  | LQH43MN821K03 | 10   |
| 37  | LQH43MN102K03 | 10   |
| 38  | LQH43MN122K03 | 10   |
| 39  | LQH43MN152K03 | 10   |
| 40  | LQH43NN182K03 | 10   |
| 41  | LQH43NN222K03 | 10   |

### EKLMQ2PC

■ SURFACE MOUNT 0805, 0806, 1008, 1206 FOR DC-DC CONVERTER MONOLITHIC TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQM21PNR47MC0 | 10   |
| 2   | LQM21PN1R0MC0 | 10   |
| 3   | LQM21PN1R5MC0 | 10   |
| 4   | LQM21PN2R2MC0 | 10   |
| 5   | LQM2MPNR47NG0 | 10   |
| 6   | LQM2MPN1R0NG0 | 10   |
| 7   | LQM2MPN1R5NG0 | 10   |
| 8   | LQM2MPN2R2NG0 | 10   |
| 9   | LQM2MPN3R3NG0 | 10   |
| 10  | LQM2MPN4R7NG0 | 10   |
| 11  | LQM2HPNR56ME0 | 10   |
| 12  | LQM2HPNR47MG0 | 10   |
| 13  | LQM2HPN1R0MG0 | 10   |
| 14  | LQM2HPN1R5MG0 | 10   |
| 15  | LQM2HPN2R2MG0 | 10   |
| 16  | LQM2HPN3R3MG0 | 10   |
| 17  | LQM2HPN4R7MG0 | 10   |
| 18  | LQM2HPN1R0MJ0 | 10   |
| 19  | LQM2HPN2R2MJ0 | 10   |
| 20  | LQM2HPN3R3MJ0 | 10   |
| 21  | LQM31PNR47MC0 | 10   |
| 22  | LQM31PN1R0MC0 | 10   |
| 23  | LQM31PN1R5MC0 | 10   |
| 24  | LQM31PN2R2MC0 | 10   |
| 25  | LQM31PNR47M00 | 10   |
| 26  | LQM31PN1R0M00 | 10   |
| 27  | LQM31PN1R5M00 | 10   |
| 28  | LQM31PN2R2M00 | 10   |
| 29  | LQM31PN3R3M00 | 10   |
| 30  | LQM31PN4R7M00 | 10   |

### EKLMH2MCE

■ SURFACE MOUNT 0806 FOR DC-DC CONVERTER WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQH2MCN1R0M02 | 10   |
| 2   | LQH2MCN1R5M02 | 10   |
| 3   | LQH2MCN2R2M02 | 10   |
| 4   | LQH2MCN3R3M02 | 10   |
| 5   | LQH2MCN4R7M02 | 10   |
| 6   | LQH2MCN5R6M02 | 10   |
| 7   | LQH2MCN6R8M02 | 10   |
| 8   | LQH2MCN8R2M02 | 10   |
| 9   | LQH2MCN100K02 | 10   |
| 10  | LQH2MCN120K02 | 10   |
| 11  | LQH2MCN150K02 | 10   |
| 12  | LQH2MCN180K02 | 10   |
| 13  | LQH2MCN220K02 | 10   |
| 14  | LQH2MCN270K02 | 10   |
| 15  | LQH2MCN330K02 | 10   |
| 16  | LQH2MCN390K02 | 10   |
| 17  | LQH2MCN470K02 | 10   |
| 18  | LQH2MCN560K02 | 10   |
| 19  | LQH2MCN680K02 | 10   |
| 20  | LQH2MCN820K02 | 10   |
| 21  | LQH2MCN1R0M52 | 10   |
| 22  | LQH2MCN1R5M52 | 10   |
| 23  | LQH2MCN2R2M52 | 10   |
| 24  | LQH2MCN3R3M52 | 10   |
| 25  | LQH2MCN4R7M52 | 10   |
| 26  | LQH2MCN6R8M52 | 10   |
| 27  | LQH2MCN100M52 | 10   |

## SURFACE MOUNT INDUCTORS

### EKLMQH3PA

■ SURFACE MOUNT 1210, 1212 FOR DC-DC CONVERTER WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQH3NPN1R0NG0 | 10   |
| 2   | LQH3NPN1R5NG0 | 10   |
| 3   | LQH3NPN2R2NG0 | 10   |
| 4   | LQH3NPN3R3NG0 | 10   |
| 5   | LQH3NPN4R7NG0 | 10   |
| 6   | LQH3NPN6R8NG0 | 10   |
| 7   | LQH3NPN100NG0 | 10   |
| 8   | LQH3NPN150NG0 | 10   |
| 9   | LQH3NPN220MG0 | 10   |
| 10  | LQH3NPN330MG0 | 10   |
| 11  | LQH3NPN470MG0 | 10   |
| 12  | LQH3NPN680MG0 | 10   |
| 13  | LQH3NPN101MG0 | 10   |
| 14  | LQH3NPN151MG0 | 10   |
| 15  | LQH3NPN221MG0 | 10   |
| 16  | LQH3NPN251MG0 | 10   |
| 17  | LQH3NPN1R0NM0 | 10   |
| 18  | LQH3NPN2R2NM0 | 10   |
| 19  | LQH3NPN3R3NM0 | 10   |
| 20  | LQH3NPN4R7NM0 | 10   |
| 21  | LQH3NPN6R8NM0 | 10   |
| 22  | LQH3NPN100NM0 | 10   |
| 23  | LQH3NPN220MM0 | 10   |
| 24  | LQH3NPN330MM0 | 10   |
| 25  | LQH3NPN470MM0 | 10   |
| 26  | LQH3NPN101MM0 | 10   |
| 27  | LQH32PNR47NNO | 10   |
| 28  | LQH32PN1R0NNO | 10   |
| 29  | LQH32PN1R5NNO | 10   |
| 30  | LQH32PN2R2NNO | 10   |
| 31  | LQH32PN3R3NNO | 10   |
| 32  | LQH32PN4R7NNO | 10   |
| 33  | LQH32PN6R8NNO | 10   |
| 34  | LQH32PN100MNO | 10   |
| 35  | LQH32PN220MNO | 10   |

### EKLMH32CC

■ SURFACE MOUNT 1210 FOR CHOKE WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQH32CNR15M33 | 10   |
| 2   | LQH32CNR27M33 | 10   |
| 3   | LQH32CNR47M33 | 10   |
| 4   | LQH32CN1R0M33 | 10   |
| 5   | LQH32CN2R2M33 | 10   |
| 6   | LQH32CN4R7M33 | 10   |
| 7   | LQH32CN100K33 | 10   |
| 8   | LQH32CN1R0M23 | 10   |
| 9   | LQH32CN2R2M23 | 10   |
| 10  | LQH32CN4R7M23 | 10   |
| 11  | LQH32CN100K23 | 10   |
| 12  | LQH32CN220K23 | 10   |
| 13  | LQH32CN470K23 | 10   |
| 14  | LQH32CN101K23 | 10   |
| 15  | LQH32CN221K23 | 10   |
| 16  | LQH32CN331K23 | 10   |
| 17  | LQH32CN391K23 | 10   |
| 18  | LQH32CN471K23 | 10   |
| 19  | LQH32CN561K23 | 10   |
| 20  | LQH32CN1R0M53 | 10   |
| 21  | LQH32CN2R2M53 | 10   |
| 22  | LQH32CN4R7M53 | 10   |
| 23  | LQH32CN100K53 | 10   |
| 24  | LQH32CN150K53 | 10   |
| 25  | LQH32CN220K53 | 10   |
| 26  | LQH32CN330K53 | 10   |
| 27  | LQH32CN470K53 | 10   |
| 28  | LQH32CN680K53 | 10   |
| 29  | LQH32CN101K53 | 10   |

### EKLMH43CC

■ SURFACE MOUNT 1812 FOR CHOKE WIRE WOUND TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQH43CN1R0M03 | 10   |
| 2   | LQH43CN1R5M03 | 10   |
| 3   | LQH43CN2R2M03 | 10   |
| 4   | LQH43CN3R3M03 | 10   |
| 5   | LQH43CN4R7M03 | 10   |
| 6   | LQH43CN6R8M03 | 10   |
| 7   | LQH43CN100K03 | 10   |
| 8   | LQH43CN150K03 | 10   |
| 9   | LQH43CN220K03 | 10   |
| 10  | LQH43CN330K03 | 10   |
| 11  | LQH43CN470K03 | 10   |
| 12  | LQH43CN680K03 | 10   |
| 13  | LQH43CN101K03 | 10   |
| 14  | LQH43CN151K03 | 10   |
| 15  | LQH43CN221K03 | 10   |
| 16  | LQH43CN331K03 | 10   |
| 17  | LQH43CN471K03 | 10   |

### EKLMM18FB

■ SURFACE MOUNT 0603 AND 0805 CHOKE MONOLITHIC TYPE

| No. | Part Number   | Qty. |
|-----|---------------|------|
| 1   | LQM18FN1R0M00 | 10   |
| 2   | LQM18FN2R2M00 | 10   |
| 3   | LQM18FN4R7M00 | 10   |
| 4   | LQM18FN100M00 | 10   |
| 5   | LQM21FN1R0N00 | 10   |
| 6   | LQM21FN2R2N00 | 10   |
| 7   | LQM21FN4R7M70 | 10   |
| 8   | LQM21FN4R7M80 | 10   |
| 9   | LQM21FN100M70 | 10   |
| 10  | LQM21FN100M80 | 10   |
| 11  | LQM21FN220N00 | 10   |
| 12  | LQM21FN470N00 | 10   |
| 13  | LQM31FN100M00 | 10   |

## CHIP THERMISTORS

### NCKIT001

■ 0201, 0402 CHIP  
NTC THERMISTORS

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | NCP15XC220J03RC | 20   |
| 2   | NCP15XC470J03RC | 20   |
| 3   | NCP15XF101J03RC | 20   |
| 4   | NCP15XM221J03RC | 20   |
| 5   | NCP15XQ471J03RC | 20   |
| 6   | NCP15XQ102J03RC | 20   |
| 7   | NCP15XW222J03RC | 20   |
| 8   | NCP15XM472J03RC | 20   |
| 9   | NCP15XW682J03RC | 20   |
| 10  | NCP15XH103J03RC | 20   |
| 11  | NCP15XV103J03RC | 20   |
| 12  | NCP15XW153J03RC | 20   |
| 13  | NCP15XW223J03RC | 20   |
| 14  | NCP15WL223J03RC | 20   |
| 15  | NCP15WB333J03RC | 20   |
| 16  | NCP15WL333J03RC | 20   |
| 17  | NCP15WB473J03RC | 20   |
| 18  | NCP15WL473J03RC | 20   |
| 19  | NCP15WD683J03RC | 20   |
| 20  | NCP15WL683J03RC | 20   |
| 21  | NCP15WF104J03RC | 20   |
| 22  | NCP15WL104J03RC | 20   |
| 23  | NCP15WM154J03RC | 20   |
| 24  | NCP15WM224J03RC | 20   |
| 25  | NCP15WM474J03RC | 20   |
| 26  | NCP15XH103F03RC | 20   |
| 27  | NCP15WB473F03RC | 20   |
| 28  | NCP15WF104F03RC | 20   |
| 29  | NCP03YS220J05RL | 20   |
| 30  | NCP03XH103J05RL | 20   |
| 31  | NCP03WB473J05RL | 20   |
| 32  | NCP03WF104F05RL | 20   |

### NCKIT002

■ 0603 CHIP NTC THERMISTORS

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | NCP18XM221J03RB | 20   |
| 2   | NCP18XM331J03RB | 20   |
| 3   | NCP18XQ471J03RB | 20   |
| 4   | NCP18XQ681J03RB | 20   |
| 5   | NCP18XQ102J03RB | 20   |
| 6   | NCP18XW152J03RB | 20   |
| 7   | NCP18XW222J03RB | 20   |
| 8   | NCP18XW332J03RB | 20   |
| 9   | NCP18XM472J03RB | 20   |
| 10  | NCP18XW682J03RB | 20   |
| 11  | NCP18XH103J03RB | 20   |
| 12  | NCP18XW153J03RB | 20   |
| 13  | NCP18XW223J03RB | 20   |
| 14  | NCP18WB333J03RB | 20   |
| 15  | NCP18WB473J03RB | 20   |
| 16  | NCP18WD683J03RB | 20   |
| 17  | NCP18WF104J03RB | 20   |
| 18  | NCP18WM154J03RB | 20   |
| 19  | NCP18WM224J03RB | 20   |
| 20  | NCP18WM474J03RB | 20   |
| 21  | NCP18XH103F03RB | 20   |

### NCKIT003

■ 0201, 0402, 0603 CHIP  
NTC THERMISTORS

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | NCP18XM472J03RB | 20   |
| 2   | NCP18XH103J03RB | 20   |
| 3   | NCP18XH103F03RB | 20   |
| 4   | NCP18WB473J03RB | 20   |
| 5   | NCP18WB473F10RB | 20   |
| 6   | NCP18WF104J03RB | 20   |
| 7   | NCP18WF104F12RB | 20   |
| 8   | NCP15XM472J03RC | 20   |
| 9   | NCP15XH103J03RC | 20   |
| 10  | NCP15XH103F03RC | 20   |
| 11  | NCP15WB473J03RC | 20   |
| 12  | NCP15WB473F03RC | 20   |
| 13  | NCP15WF104J03RC | 20   |
| 14  | NCP15WF104F03RC | 20   |
| 15  | NCP03XH103J05RL | 20   |
| 16  | NCP03WB473J05RL | 20   |

### NCKIT051

■ 0402, 0603, 0805 CHIP  
NTC THERMISTORS FOR  
AUTOMOTIVE APPLICATIONS

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | NCP15XF101J0SRC | 20   |
| 2   | NCP15XQ102J0SRC | 20   |
| 3   | NCP15XM472J0SRC | 20   |
| 4   | NCP15XH103F0SRC | 20   |
| 5   | NCP15XW223J0SRC | 20   |
| 6   | NCP15WB473F0SRC | 20   |
| 7   | NCP15WF104F0SRC | 20   |
| 8   | NCP15WM474J0SRC | 20   |
| 9   | NCP18XF101J0SRB | 20   |
| 10  | NCP18XQ102J0SRB | 20   |
| 11  | NCP18XM472J0SRB | 20   |
| 12  | NCP18XH103F0SRB | 20   |
| 13  | NCP18XW223J0SRB | 20   |
| 14  | NCP18WB473F1SRB | 20   |
| 15  | NCP18WF104F3SRB | 20   |
| 16  | NCP18WM474J0SRB | 20   |

### PRKIT001

■ 0603 OVER CURRENT AND  
OVERHEAT PROTECTION

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | PRG18BB471MB1RB | 20   |
| 2   | PRG18BB221MB1RB | 20   |
| 3   | PRG18BB101MB1RB | 20   |
| 4   | PRG18BB470MB1RB | 20   |
| 5   | PRG18BB330MB1RB | 20   |
| 6   | PRG21BB220MB1RK | 20   |
| 7   | PRG21BB150MB1RK | 20   |
| 8   | PRG18BC6R8MM1RB | 20   |
| 9   | PRG18BC4R7MM1RB | 20   |
| 10  | PRG21BC6R8MM1RA | 20   |
| 11  | PRG21BC4R7MM1RA | 20   |
| 12  | PRG21BC3R3MM1RA | 20   |
| 13  | PRG21BC2R2MM1RA | 20   |
| 14  | PRG21BC1R0MM1RA | 20   |
| 15  | PRG21BC0R6MM1RA | 20   |
| 16  | PRG21BC0R2MM1RA | 20   |
| 17  | PRF18BG471QB5RB | 20   |
| 18  | PRF18BF471QB5RB | 20   |
| 19  | PRF18BE471QB5RB | 20   |
| 20  | PRF18BD471QB5RB | 20   |
| 21  | PRF18BC471QB5RB | 20   |
| 22  | PRF18BB471QB5RB | 20   |
| 23  | PRF18BA471QB5RB | 20   |
| 24  | PRF18AR471QB5RB | 20   |
| 25  | PRF18AS471QB5RB | 20   |
| 26  | PRF15BC471QB1RC | 20   |
| 27  | PRF15BB471QB1RC | 20   |
| 28  | PRF15BA471QB1RC | 20   |
| 29  | PRF18BE471RB5RB | 20   |
| 30  | PRF18BD471RB5RB | 20   |
| 31  | PRF18BC471RB5RB | 20   |
| 32  | PRF18BB471RB5RB | 20   |

## CHIP THERMISTORS

### PRKIT0S1

■ 0603, 0805 OVER CURRENT &  
OVER HEAT PROTECTION FOR  
AUTOMOTIVE APPLICATIONS

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | PRF18AS471QS2RB | 20   |
| 2   | PRF18AR471QS2RB | 20   |
| 3   | PRF18BA471QS2RB | 20   |
| 4   | PRF18BB471QS2RB | 20   |
| 5   | PRF18BC471QS2RB | 20   |
| 6   | PRF18BD471QS2RB | 20   |
| 7   | PRF18BE471QS2RB | 20   |
| 8   | PRF18BF471QS2RB | 20   |
| 9   | PRF18BG471QS2RB | 20   |
| 10  | PRF18BB471RS2RB | 20   |
| 11  | PRF18BC471RS2RB | 20   |
| 12  | PRF18BD471RS2RB | 20   |
| 13  | PRF18BE471RS2RB | 20   |
| 14  | PRG21AR420MS1RA | 20   |
| 15  | PRG21AR220MS1RK | 20   |

### NCPRKIT001

■ 0603, 0805 OVER CURRENT AND  
OVERHEAT PROTECTION

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | NCP15XH103F03RC | 20   |
| 2   | NCP15WB473F03RC | 20   |
| 3   | NCP15WF104F03RC | 20   |
| 4   | NCP15XM472J03RC | 20   |
| 5   | NCP15XW223J03RC | 20   |
| 6   | NCP15WD683J03RC | 20   |
| 7   | NCP15WM224J03RC | 20   |
| 8   | NCP15WM474J03RC | 20   |
| 9   | NCP18XH103F03RB | 20   |
| 10  | NCP18WB473F10RB | 20   |
| 11  | NCP18WF104F12RB | 20   |
| 12  | NCP18XM472J03RB | 20   |
| 13  | NCP18XW223J03RB | 20   |
| 14  | NCP18WD683J03RB | 20   |
| 15  | NCP18WM224J03RB | 20   |
| 16  | NCP18WM474J03RB | 20   |
| 17  | PRG18BB101MB1RB | 20   |
| 18  | PRG18BB330MB1RB | 20   |
| 19  | PRG18BC6R8MM1RB | 20   |
| 20  | PRG18BC4R7MM1RB | 20   |
| 21  | PRG21BC3R3MM1RA | 20   |
| 22  | PRG21BC2R2MM1RA | 20   |
| 23  | PRG21BC1R0MM1RA | 20   |
| 24  | PRG21BC0R6MM1RA | 20   |
| 25  | PRG21BC0R2MM1RA | 20   |
| 26  | PRF18BE471QB5RB | 20   |
| 27  | PRF18BD471QB5RB | 20   |
| 28  | PRF18BC471QB5RB | 20   |
| 29  | PRF18BB471QB5RB | 20   |
| 30  | PRF18BA471QB5RB | 20   |
| 31  | PRF18AR471QB5RB | 20   |
| 32  | PRF18AS471QB5RB | 20   |

## CHIP TRIMMING CAPACITORS

### 3MM LEADED TRIMMER CAPACITOR

- Sealed Construction
- Designed for auto-placement
- Available in 4 adjustment types

#### TZ03KT□1

| No. | Global Part Number | Qty. |
|-----|--------------------|------|
| 1   | TZ03Z070□169B00    | 8    |
| 2   | TZ03Z100□169B00    | 8    |
| 3   | TZ03R121□169B00    | 8    |
| 4   | TZ03R200□169B00    | 8    |
| 5   | TZ03R300□169B00    | 8    |
| 6   | TZ03P450□169B00    | 8    |
| 7   | TZ03Z500□169B00    | 8    |
| 8   | TZ03P600□169B00    | 8    |

B: Rear Adjustment  
E.: Top Adjustment  
F: Top Adjustment  
N: Rear Adjustment

Note: Please fill in the 1-letter code for type of adjustment into the □ when ordering.

### 4MM CHIP TRIMMER CAPACITOR

- Rectangular shape
- Designed for auto-placement
- Flow and reflow available

#### TZB4KT□□

| No. | Global Part Number | Qty. |
|-----|--------------------|------|
| 1   | TZB4Z030□□10B00    | 20   |
| 2   | TZB4Z060□□10B00    | 20   |
| 3   | TZB4Z100□□10B00    | 20   |
| 4   | TZB4R200□□10B00    | 20   |
| 5   | TZB4P300□□10B00    | 20   |
| 6   | TZB4P400□□10B00    | 20   |
| 7   | TZB4Z250□□10B00    | 20   |
| 8   | TZB4R500□□10B00    | 20   |

Note: Please fill in the 2-letter code for terminal shape and cover film into the □□ when ordering. See chart below for letter codes.  
Ex. AA = Top Adjust, Without Cover Film

| First Letter  | Terminal Type            |
|---------------|--------------------------|
| A             | Top Adjust               |
| B             | Top Adjust, Gull Wing    |
| E             | Leaded Read Adjust, Gull |
| Second Letter | Cover Film               |
| A             | Without Cover Film       |

### 3MM LOW PROFILE CHIP TRIMMER CAPACITOR

- Small Package
- Designed for auto-placement
- High resistance resin

#### TZC3KT11

| No. | Global Part Number | Qty. |
|-----|--------------------|------|
| 1   | TZC3Z030A110B00    | 20   |
| 2   | TZC3Z060A110B00    | 20   |
| 3   | TZC3R100A110B00    | 20   |
| 4   | TZC3P200A110B00    | 20   |
| 5   | TZC3P300A110B00    | 20   |

### 2MM ULTRA SMALL SMD TRIMMER CAPACITOR

- Small and thin
- Designed for auto-placement
- Unique construction with no plastic

#### TZV2KT01

| No. | Global Part Number | Qty. |
|-----|--------------------|------|
| 1   | TZV2Z2R5A110B00    | 20   |
| 2   | TZV2Z030A110B00    | 20   |
| 3   | TZV2Z060A110B00    | 20   |
| 4   | TZV2Z100A110B00    | 20   |
| 5   | TZV2R200A110B00    | 20   |

### 2MM ULTRA SMALL SMD TRIMMER CAPACITOR

- Small and thin
- Designed for auto-placement
- Unique construction with no plastic

#### TZY2KT01

| No. | Global Part Number | Qty. |
|-----|--------------------|------|
| 1   | TZY2Z010A001B00    | 20   |
| 2   | TZY2Z2R5A001B00    | 20   |
| 3   | TZY2Z030A001B00    | 20   |
| 4   | TZY2Z060A001B00    | 20   |
| 5   | TZY2Z100A001B00    | 20   |
| 6   | TZY2R200A001B00    | 20   |
| 7   | TZY2R250A001B00    | 20   |
| 8   | TZY2K450A001B00    | 20   |
| 9   | KMDR060B00         | 1    |

### 2MM ULTRA SMALL SMD TRIMMER CAPACITOR

- Small and thin
- Designed for auto-placement
- Unique construction with no plastic

#### TZS2KT01

| No. | Global Part Number | Qty. |
|-----|--------------------|------|
| 1   | TZS2Z060A001B00    | 20   |
| 2   | TZS2Z100A001B00    | 20   |
| 3   | TZS2R200A001B00    | 20   |
| 4   | KMDR050B00         | 1    |

KMDR\*\*\* : Driver for adjustment

### 1MM ULTRA SMALL CHIP TRIMMER CAPACITOR

- Smallest package available for trimmer capacitor
- Excellent soldering heat resistance
- No plastic construction
- Pb/Lead free construction

#### TZR1KT01

| No. | Global Part Number | Qty. |
|-----|--------------------|------|
| 1   | TZR1Z010A001B00    | 20   |
| 2   | TZR1Z1R5A001B00    | 20   |
| 3   | TZR1Z040A001B00    | 20   |
| 4   | TZR1R080A001B00    | 20   |
| 5   | KMDR160B00         | 1    |

KMDR\*\*\* : Driver for adjustment

## TRIMMER POTENTIOMETERS

### SINGLE-TURN CARBON CHIP 3.0MM PACKAGE

- Funnel shaped adjustment slot
- Miniature package
- High resistance to solder leaching

#### PVZ3KTA1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVZ3A471C01B00 | 20   |
| 2   | PVZ3A102C01B00 | 20   |
| 3   | PVZ3A472C01B00 | 20   |
| 4   | PVZ3A103C01B00 | 20   |
| 5   | PVZ3A473C01B00 | 20   |
| 6   | PVZ3A104C01B00 | 20   |
| 7   | PVZ3A474C01B00 | 20   |
| 8   | PVZ3A105C01B00 | 20   |
| 9   | KMDR080        | 1    |

### SINGLE-TURN CARBON CHIP 3.0MM PACKAGE

- Funnel shaped adjustment slot
- Miniature package
- High resistance to solder leaching

#### PVZ3KTK1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVZ3K471E01B00 | 20   |
| 2   | PVZ3K102E01B00 | 20   |
| 3   | PVZ3K472E01B00 | 20   |
| 4   | PVZ3K103E01B00 | 20   |
| 5   | PVZ3K473E01B00 | 20   |
| 6   | PVZ3K104E01B00 | 20   |
| 7   | PVZ3K474E01B00 | 20   |
| 8   | PVZ3K105E01B00 | 20   |
| 9   | KMDR080        | 1    |

### SINGLE-TURN CARBON CHIP 2.0MM PACKAGE

- Funnel shaped adjustment slot
- Miniature package
- High resistance to solder leaching

#### PVZ2KTA1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVZ2A471C04B00 | 20   |
| 2   | PVZ2A102C04B00 | 20   |
| 3   | PVZ2A472C04B00 | 20   |
| 4   | PVZ2A103C04B00 | 20   |
| 5   | PVZ2A473C04B00 | 20   |
| 6   | PVZ2A104C04B00 | 20   |
| 7   | PVZ2A474C04B00 | 20   |
| 8   | PVZ2A105C04B00 | 20   |
| 9   | KMDR190        | 1    |

KMDR\*\*\*\_Driver for adjustment

### SINGLE-TURN CARBON CHIP 3.0MM PACKAGE

- Low profile
- Funnel shaped adjustment slot
- Miniature package
- High resistance to solder leaching

#### PVZ3KTG1

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | PVZ3G471C01 B00 | 20   |
| 2   | PVZ3G102C01 B00 | 20   |
| 3   | PVZ3G472C01 B00 | 20   |
| 4   | PVZ3G103C01 B00 | 20   |
| 5   | PVZ3G473C01 B00 | 20   |
| 6   | PVZ3G104C01 B00 | 20   |
| 7   | PVZ3G474C01 B00 | 20   |
| 8   | PVZ3G105C01 B00 | 20   |
| 9   | KMDR080B00      | 1    |

### SINGLE-TURN CERMET CHIP 2.0MM PACKAGE

- Available for flow and reflow soldering
- High reliability
- Unique sealed construction
- High resistance to solder leaching

#### PVA2KT01

| No. | Part Number     | Qty. |
|-----|-----------------|------|
| 1   | PVA2A471A01 B00 | 20   |
| 2   | PVA2A102A01 B00 | 20   |
| 3   | PVA2A472A01 B00 | 20   |
| 4   | PVA2A103A01 B00 | 20   |
| 5   | PVA2A473A01 B00 | 20   |
| 6   | PVA2A104A01 B00 | 20   |
| 7   | PVA2A474A01 B00 | 20   |
| 8   | PVA2A105A01 B00 | 20   |
| 9   | KMDR190B00      | 1    |

### MULTI-TURN CERMET CHIP 5.0MM PACKAGE

- 11 turns
- Compatible with VPS reflow soldering method
- Compatible with ultrasonic cleaning
- Clutch mechanism prevents excessive wiper rotation

#### PVG5KTA1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVG5A500C01B00 | 10   |
| 2   | PVG5A101C01B00 | 10   |
| 3   | PVG5A102C01B00 | 10   |
| 4   | PVG5A502C01B00 | 10   |
| 5   | PVG5A103C01B00 | 10   |
| 6   | PVG5A503C01B00 | 10   |
| 7   | PVG5A104C01B00 | 10   |
| 8   | PVG5A105C01B00 | 10   |

### MULTI-TURN CERMET CHIP 5.0MM PACKAGE

- 11 turns
- Compatible with VPS reflow soldering method
- Compatible with ultrasonic cleaning
- Clutch mechanism prevents excessive wiper rotation

#### PVG5KTH1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVG5H500C03B00 | 10   |
| 2   | PVG5H101C03B00 | 10   |
| 3   | PVG5H102C03B00 | 10   |
| 4   | PVG5H502C03B00 | 10   |
| 5   | PVG5H103C03B00 | 10   |
| 6   | PVG5H503C03B00 | 10   |
| 7   | PVG5H104C03B00 | 10   |
| 8   | PVG5H105C03B00 | 10   |

### SINGLE-TURN CERMET CHIP 3.0MM GULL WING LEAD PACKAGE

- Ultra small
- Withstands high temperature reflow soldering
- High resistance to solder leaching

#### PVG3KTA1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVG3A500C01B00 | 20   |
| 2   | PVG3A101C01B00 | 20   |
| 3   | PVG3A102C01B00 | 20   |
| 4   | PVG3A502C01B00 | 20   |
| 5   | PVG3A103C01B00 | 20   |
| 6   | PVG3A503C01B00 | 20   |
| 7   | PVG3A104C01B00 | 20   |
| 8   | PVG3A105C01B00 | 20   |



## TRIMMER POTENTIOMETERS

### SINGLE-TURN CERMET CHIP 3.0MM J LEAD PACKAGE

- Ultra small
- Withstands high temperature reflow soldering
- High resistance to solder leaching
- Sealed construction

#### PVG3KTG1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVG3G500C01B00 | 20   |
| 2   | PVG3G101C01B00 | 20   |
| 3   | PVG3G102C01B00 | 20   |
| 4   | PVG3G502C01B00 | 20   |
| 5   | PVG3G103C01B00 | 20   |
| 6   | PVG3G503C01B00 | 20   |
| 7   | PVG3G104C01B00 | 20   |
| 8   | PVG3G105C01B00 | 20   |

### SINGLE-TURN CERMET CHIP 4.0MM PACKAGE

- Available for flow and reflow soldering
- High reliability
- Unique sealed construction
- High resistance to soldering leaching

#### PVM4KTC1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVM4A500C01B00 | 20   |
| 2   | PVM4A101C01B00 | 20   |
| 3   | PVM4A102C01B00 | 20   |
| 4   | PVM4A502C01B00 | 20   |
| 5   | PVM4A103C01B00 | 20   |
| 6   | PVM4A503C01B00 | 20   |
| 7   | PVM4A104C01B00 | 20   |
| 8   | PVM4A105C01B00 | 20   |

### SINGLE-TURN CERMET CHIP 4.0MM PACKAGE

- Available for flow and reflow soldering
- High reliability
- Unique sealed construction
- High resistance to soldering leaching

#### PVM4KTD1

| No. | Part Number    | Qty. |
|-----|----------------|------|
| 1   | PVM4A500D01B00 | 20   |
| 2   | PVM4A101D01B00 | 20   |
| 3   | PVM4A102D01B00 | 20   |
| 4   | PVM4A502D01B00 | 20   |
| 5   | PVM4A103D01B00 | 20   |
| 6   | PVM4A503D01B00 | 20   |
| 7   | PVM4A104D01B00 | 20   |
| 8   | PVM4A105D01B00 | 20   |

**⚠ Note:**

1. Export Control

⟨For customers outside Japan⟩

Murata products should not be used or sold for use in the development, production, stockpiling or utilization of any conventional weapons or mass-destructive weapons (nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.

⟨For customers in Japan⟩

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

2. Please contact our sales representatives or product engineers before using the products in this catalog for the applications listed below, which require especially high reliability for the prevention of defects which might directly damage a third party's life, body or property, or when one of our products is intended for use in applications other than those specified in this catalog.

- |                             |  |
|-----------------------------|--|
| ① Aircraft equipment        | ② Aerospace equipment  |
| ③ Undersea equipment        | ④ Power plant equipment  |
| ⑤ Medical equipment         | ⑥ Transportation equipment (vehicles, trains, ships, etc.)   |
| ⑦ Traffic signal equipment  | ⑧ Disaster prevention / crime prevention equipment   |
| ⑨ Data-processing equipment | ⑩ Application of similar complexity and/or reliability requirements to the applications listed above |

3. Product specifications are subject to change or our products may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.

4. Please read rating and ⚠ CAUTION (for storage, operating, rating, soldering, mounting and handling) to prevent smoking and/or burning, etc.

5. Please approve our product specifications or complete the approval sheet for product specifications before ordering.

6. Please note that unless otherwise specified, we shall assume no responsibility whatsoever for any conflict or dispute that may occur in connection with the effect of our and/or a third party's intellectual property rights and other related rights in consideration of your use of our products and/or information described or contained in our catalogs. In this connection, no representation shall be made to the effect that any third parties are authorized to use the rights mentioned above under licenses without our consent.

7. No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.

8. For status of ROHS compliance of our products, please consult our website.

---



*Innovator in Electronics*

2200 Lake Park Drive  
Smyrna, GA 30080

Phone: 770-436-1300

Fax: 770-436-3030

[www.murata-northamerica.com](http://www.murata-northamerica.com)

*For website information on:*

**Design Engineering Kits:**

[www.murata.com/kits](http://www.murata.com/kits)

**Design Tools:**

[www.murata.com/designlib/index.html](http://www.murata.com/designlib/index.html)

**Capacitors:**

[www.murata.com/cap/index.html](http://www.murata.com/cap/index.html)

**Connectors:**

[www.murata.com/catalog/o30e8.pdf](http://www.murata.com/catalog/o30e8.pdf)

**EMI Filters:**

[www.murata.com/emc/index.html](http://www.murata.com/emc/index.html)

**Inductors:**

[www.murata.com/coil/index.html](http://www.murata.com/coil/index.html)

**Thermistors/Trimmer Potentiometers:**

[www.murata.com/thermis/index.html](http://www.murata.com/thermis/index.html)

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)