

# 40 Series

## Ohmicone® Silicone-Ceramic Conformal Axial Terminal Wirewound 1% and 5% Tolerance Standard



Ohmite 40 Series resistors are the most economical conformal silicone-ceramic coated resistors offered. These all-welded units are characterized by their low temperature coefficients and resistance to thermal shock, making them ideal for a wide range of electrical and electronic applications.

Units with 1% and 5% tolerances are identical in construction and electrical specifications. Durable but economical 40 Series resistors exceed industry requirements for quality.

### FEATURES

- Economical
- Applications include commercial, industrial and communications equipment
- Stability under high temperature conditions
- All-welded construction
- RoHS compliant; add "E" suffix to part number to specify.

### SERIES SPECIFICATIONS

| Series | Wattage | Ohms      | Voltage |
|--------|---------|-----------|---------|
| 41     | 1.0     | 0.10-6K   | 150     |
| 42     | 2.0     | 0.10-8K   | 100     |
| 43     | 3.0     | 0.10-20K  | 200     |
| 45     | 5.0     | 0.10-70K  | 460     |
| 47     | 7.0     | 0.10-80K  | 670     |
| 40     | 10.0    | 0.10-150K | 1000    |

Non-Inductive versions available. Insert "N" before tolerance code.  
Example: 42NJ27R

### CHARACTERISTICS

|                                |                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Coating</b>                 | Conformal silicone-ceramic.                                                                                 |
| <b>Core</b>                    | Ceramic.                                                                                                    |
| <b>Terminals</b>               | Solder-coated copper clad axial. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu                        |
| <b>Derating</b>                | Linearly from 100% @ +25°C to 0% @ +275°C.                                                                  |
| <b>Tolerance</b>               | ±5% (J type), ±1% (F type) (other tolerances available).                                                    |
| <b>Power rating</b>            | Based on 25°C free air rating                                                                               |
| <b>Overload</b>                | Under 5 watts: 5 times rated wattage for 5 seconds. 5 watts and over: 10 times rated wattage for 5 seconds. |
| <b>Temperature coefficient</b> | Under 1Ω: ±90 ppm/°C; 1Ω to 9.99Ω: ±50 ppm/°C; 10Ω and over: ±20 ppm/°C                                     |
| <b>Operating temp. range</b>   | -55°C to 275°C                                                                                              |

### DIMENSIONS

(in./mm max.)



| Series | Wattage | Length       | Diam.        | Lead ga. |
|--------|---------|--------------|--------------|----------|
| 41     | 1.0     | 0.437 / 11.1 | 0.125 / 3.2  | 24       |
| 42     | 2.0     | 0.406 / 10.3 | 0.219 / 5.6  | 20       |
| 43     | 3.0     | 0.593 / 15.1 | 0.219 / 5.6  | 20       |
| 45     | 5.0     | 0.937 / 23.8 | 0.343 / 8.7  | 18       |
| 47     | 7.0     | 1.280 / 32.5 | 0.343 / 8.7  | 18       |
| 40     | 10.0    | 1.900 / 48.3 | 0.406 / 10.3 | 18       |

(continued)

# 40 Series

## Ohmicone® Silicone-Ceramic Conformal Axial Terminal Wirewound 1% and 5% Tolerance Standard

### ORDERING INFORMATION

#### Standard part numbers

| Wattage and Tolerance            |      |   |   |    |   |                                  |   |   |   |    | Wattage and Tolerance |                                  |      |   |   |   |    |                                  |   |   |   | Wattage and Tolerance |                                          |                                  |   |   |   |   |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
|----------------------------------|------|---|---|----|---|----------------------------------|---|---|---|----|-----------------------|----------------------------------|------|---|---|---|----|----------------------------------|---|---|---|-----------------------|------------------------------------------|----------------------------------|---|---|---|---|----|----------------------------------|---|---|---|---|-------------|--------------|--|--|--|--|--|--------------|--|--|--|--|
| 1% Tolerance                     |      |   |   |    |   | 5% Tolerance                     |   |   |   |    | Ohmic value           | 1% Tolerance                     |      |   |   |   |    | 5% Tolerance                     |   |   |   |                       | Ohmic value                              | 1% Tolerance                     |   |   |   |   |    | 5% Tolerance                     |   |   |   |   | Ohmic value | 1% Tolerance |  |  |  |  |  | 5% Tolerance |  |  |  |  |
| Part No.<br>Prefix ▶<br>Suffix ▼ | 1    | 3 | 5 | 10 |   | Part No.<br>Prefix ▶<br>Suffix ▼ | 1 | 3 | 5 | 10 |                       | Part No.<br>Prefix ▶<br>Suffix ▼ | 1    | 2 | 3 | 5 | 10 | Part No.<br>Prefix ▶<br>Suffix ▼ | 1 | 3 | 5 | 10                    |                                          | Part No.<br>Prefix ▶<br>Suffix ▼ | 1 | 2 | 3 | 5 | 10 | Part No.<br>Prefix ▶<br>Suffix ▼ | 1 | 2 | 3 | 5 |             | 10           |  |  |  |  |  |              |  |  |  |  |
| 0.1                              | —R10 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 68                               | —68R | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 2,200                                    | —2K2                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 0.15                             | —R15 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 75                               | —75R | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 2,500                                    | —2K5                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 0.2                              | —R20 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 82                               | —82R | ✱ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 2,700                                    | —2K7                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 0.25                             | —R25 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 100                              | —100 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 3,000                                    | —3K0                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 0.3                              | —R30 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 120                              | —120 | ✱ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 3,300                                    | —3K3                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 0.33                             | —R33 |   |   |    |   |                                  | ✓ |   |   |    |                       | 125                              | —125 | ✓ | ✱ | ✱ | ✱  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 3,500                                    | —3K5                             |   | ✓ | ✓ | ✓ |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 0.4                              | —R40 |   | ✓ | ✓  | ✓ |                                  | ✓ |   |   |    |                       | 150                              | —150 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 3,900                                    | —3K9                             |   | ✓ | ✓ | ✓ |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 0.5                              | —R50 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 180                              | —180 | ✓ | ✓ | ✓ | ✱  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 4,000                                    | —4K0                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 0.75                             | —R75 | ✓ | ✱ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 200                              | —200 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 4,500                                    | —4K5                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 1                                | —1R0 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 220                              | —220 | ✓ | ✓ | ✓ | ✱  | ✱                                | ✓ | ✓ | ✓ | ✓                     | 4,700                                    | —4K7                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 1.5                              | —1R5 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 225                              | —225 | ✱ | ✱ | ✱ | ✱  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 5,000                                    | —5K0                             |   | ✓ | ✓ | ✓ |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 2                                | —2R0 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 250                              | —250 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 6,000                                    | —6K0                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 2.2                              | —2R2 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 270                              | —270 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✱ | ✓ | ✓                     | 6,800                                    | —6K8                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 3                                | —3R0 | ✓ | ✓ | ✓  | ✓ | ✱                                | ✓ | ✓ | ✓ | ✓  | ✓                     | 300                              | —300 | ✓ | ✱ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 7,000                                    | —7K0                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 4                                | —4R0 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 330                              | —330 | ✓ | ✱ | ✱ | ✱  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 7,500                                    | —7K5                             | ✓ | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 5                                | —5R0 | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 350                              | —350 | ✱ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 8,000                                    | —8K0                             |   | ✓ | ✓ | ✓ | ✓  |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 7.5                              | —7R5 | ✓ | ✓ | ✓  | ✓ |                                  | ✱ | ✓ | ✓ | ✓  | ✓                     | 390                              | —390 | ✱ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 9,000                                    | —9K0                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 10                               | —10R | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 400                              | —400 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 10,000                                   | —10K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 12                               | —12R | ✱ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 450                              | —450 | ✱ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 12,000                                   | —12K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 15                               | —15R | ✓ | ✓ | ✓  | ✓ | ✱                                | ✓ | ✱ | ✓ | ✓  | ✓                     | 470                              | —470 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 13,000                                   | —13K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 18                               | —18R | ✱ | ✓ | ✓  | ✓ | ✱                                | ✱ | ✓ | ✓ | ✓  | ✓                     | 500                              | —500 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 15,000                                   | —15K                             |   | ✓ | ✓ | ✓ | ✓  |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 20                               | —20R | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 560                              | —560 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 17,000                                   | —17K                             |   | ✓ | ✓ | ✓ | ✓  |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 22                               | —22R | ✓ | ✓ | ✓  | ✓ | ✱                                | ✓ | ✓ | ✓ | ✓  | ✓                     | 600                              | —600 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 20,000                                   | —20K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 25                               | —25R | ✓ | ✓ | ✓  | ✓ |                                  | ✱ | ✓ | ✓ | ✓  | ✓                     | 680                              | —680 | ✓ | ✓ | ✓ | ✱  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 22,000                                   | —22K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 27                               | —27R | ✱ | ✓ | ✓  | ✓ |                                  | ✱ | ✓ | ✓ | ✓  | ✓                     | 750                              | —750 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 25,000                                   | —25K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 30                               | —30R | ✓ | ✓ | ✓  | ✓ |                                  | ✱ | ✓ | ✓ | ✓  | ✓                     | 800                              | —800 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 30,000                                   | —30K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 33                               | —33R | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 820                              | —820 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 33,000                                   | —33K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 35                               | —35R | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 900                              | —900 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 35,000                                   | —35K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 39                               | —39R | ✓ | ✓ | ✓  | ✓ | ✱                                | ✓ | ✓ | ✓ | ✓  | ✓                     | 1,000                            | —1K0 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 40,000                                   | —40K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 40                               | —40R | ✓ | ✓ | ✓  | ✓ |                                  | ✱ | ✓ | ✓ | ✓  | ✓                     | 1,100                            | —1K1 | ✱ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | 50,000                                   | —50K                             |   | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓ | ✓           |              |  |  |  |  |  |              |  |  |  |  |
| 47                               | —47R | ✓ | ✓ | ✓  | ✓ | ✱                                | ✓ | ✓ | ✓ | ✓  | ✓                     | 1,200                            | —1K2 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | ✓ = Standard values                      |                                  |   |   |   |   |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 50                               | —50R | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 1,500                            | —1K5 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | ✱ = Non-standard values subject to mini- |                                  |   |   |   |   |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 56                               | —56R | ✓ | ✓ | ✓  | ✓ |                                  | ✓ | ✓ | ✓ | ✓  | ✓                     | 1,800                            | —1K8 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     | mum handling charge per item             |                                  |   |   |   |   |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |
| 62                               | —62R | ✓ | ✓ | ✓  | ✓ |                                  | ✱ | ✓ | ✓ | ✓  | ✓                     | 2,000                            | —2K0 | ✓ | ✓ | ✓ | ✓  | ✓                                | ✓ | ✓ | ✓ | ✓                     |                                          |                                  |   |   |   |   |    |                                  |   |   |   |   |             |              |  |  |  |  |  |              |  |  |  |  |

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.

40 Series  
Ohmicone®  
Silicone Ceramic  
Conformal Axial  
Term. Wirewound

Non-Inductive  
Winding  
optional  
(blank= std.  
winding)

RoHS  
Compliant

41NJR10E-T

Wattage  
1 = 1W  
2  
3  
5  
7  
0 = 10W

Tolerance  
F = 1%  
J = 5%

Resistance  
R10 = 0.10Ω  
1R0 = 1.0Ω  
10R = 10.0Ω  
250 = 250Ω  
1K0 = 1,000Ω  
4K5 = 4,500Ω  
50K = 50,000Ω

Tape & reel  
optional  
pc/reel:  
41: 5000  
42: 1250  
43: 1250  
45: 1000  
47: 500  
40: 500

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.



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