



RoHS Compliant

### Features

- High specific capacitance
- 0.01 farad to 1.0 farad
- Very low ESR down to 25 milliOhm
- Low profile: down to 2.1mm height
- High power pulse capability
- Leakage current 5-120 micro amperes
- Non-polar
- Foot prints 20×15mm or 28×17mm or 48×30mm
- Voltage ratings 3.6V-20V
- Operating temperature range: -20 to +70°C

### Applications

- GSM/ GPRS Wireless Communication Products
- ADSL/ xDSL and Other Communication Equipment
- Automatic Meter Reading Systems
- Wireless Alarm Systems
- Memory Back-up
- Mainframe Computer De-coupling
- Hybrid Battery Packs
- Portable Medical Laser
- Energy Harvest

### How to Order

BZ 01 5 A 503 Z A B ☐ ☐

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Series (BZ: BestCap)

② Size

|        |         |        |         |
|--------|---------|--------|---------|
| 01/ 11 | 28×17mm | 02/ 12 | 48×30mm |
| 5/ 15  | 20×15mm | 09     | 17×15mm |

③ Rated Voltage (VDC)

|   |     |   |      |
|---|-----|---|------|
| 3 | 3.6 | C | 12.0 |
| 4 | 4.5 | F | 15.0 |
| 5 | 5.5 | G | 16.0 |
| 9 | 9.0 | K | 20.0 |

④ A: Standard

B: LowProfile

⑤ Capacitance (μF) (three digits style)

|     |      |     |        |
|-----|------|-----|--------|
| ex: |      | 204 | 200mF  |
| 603 | 60mF | 105 | 1000mF |

⑥ Tolerance

|   |            |
|---|------------|
| Z | +80%/ -20% |
|---|------------|

⑦ Lead Specifications

|   |                                |   |                                |
|---|--------------------------------|---|--------------------------------|
| A | Through Hole Type              | L | 4 terminals surface mount type |
| H | Stand off Type                 | S | 3 terminals surface mount type |
| N | 2 terminals surface mount type | W | Flex wire type                 |

⑧ Package

|   |              |
|---|--------------|
| B | Bulk in tray |
|---|--------------|

⑨ Option

### Ratings and Part Number Reference

● BZ01/ BZ11 case size

| AVX Part Number | Rated Voltage | Cap (mF) | ESR (mΩ@1kHz) |      | Leakage Current (μA max) | Height (mm max) |        |        |              |
|-----------------|---------------|----------|---------------|------|--------------------------|-----------------|--------|--------|--------------|
|                 |               |          | typ.          | max. |                          | A-lead          | H-lead | S-lead | S-lead (AJ)* |
| BZ013B503Z B    | 3.6           | 50       | 100           | 120  | 5                        | —               | —      | 3.2    | 2.1          |
| BZ013A703Z B    | 3.6           | 70       | 140           | 168  | 5                        | 3.5             | 6.4    | 4.0    | 2.9          |
| BZ113B104Z B    | 3.6           | 100      | 100           | 120  | 10                       | —               | —      | 3.2    | 2.1          |
| BZ013A144Z B    | 3.6           | 140      | 70            | 84   | 5                        | 5.3             | 8.2    | 5.8    | —            |
| BZ014B333Z B    | 4.5           | 33       | 150           | 180  | 5                        | —               | —      | 3.5    | 2.4          |
| BZ015B303Z B    | 5.5           | 30       | 160           | 192  | 5                        | —               | —      | 3.8    | 2.7          |
| BZ015A503Z B    | 5.5           | 50       | 160           | 192  | 5                        | 4.1             | 7.0    | 4.6    | 3.5          |
| BZ015B603Z B    | 5.5           | 60       | 80            | 96   | 10                       | 5.4             | 8.3    | 5.9    | —            |
| BZ015A104Z B    | 5.5           | 100      | 80            | 96   | 10                       | 6.7             | 9.6    | 7.2    | —            |
| BZ019B223Z B    | 9.0           | 22       | 250           | 300  | 5                        | 4.7             | 7.6    | 5.2    | 4.1          |
| BZ019A333Z B    | 9.0           | 33       | 250           | 300  | 5                        | 5.5             | 8.4    | 6.0    | 4.9          |
| BZ01CB153Z B    | 12.0          | 15       | 350           | 420  | 5                        | 5.9             | 8.8    | 6.4    | 5.3          |
| BZ01CA223Z B    | 12.0          | 22       | 350           | 420  | 5                        | 7.1             | 10.0   | 7.6    | 6.5          |

\* Select S-Lead BZ01 BestCap are available with insulation on the bottom of the part and zero clearance from the PCB. To order, please add special requirement AJ to the end of the part number.  
Example) BZ013B503ZSBAJ

● BZ02/ BZ12 case size

| AVX Part Number | Rated Voltage | Cap (mF) | ESR (mΩ@1kHz) |      | Leakage Current (μA max) | Height (mm max) |        |        |
|-----------------|---------------|----------|---------------|------|--------------------------|-----------------|--------|--------|
|                 |               |          | typ.          | max. |                          | A-lead          | H-lead | L-lead |
| BZ023A284Z B    | 3.6           | 280      | 45            | 54   | 20                       | 3.5             | 6.4    | 3.7    |
| BZ023A564Z B    | 3.6           | 560      | 25            | 30   | 40                       | 5.3             | 8.2    | 5.5    |
| BZ025A204Z B    | 5.5           | 200      | 60            | 72   | 20                       | 4.1             | 7.0    | 4.3    |
| BZ025A404Z B    | 5.5           | 400      | 35            | 42   | 40                       | 6.7             | 9.6    | 6.9    |
| BZ125A105Z B    | 5.5           | 1000     | 35            | 42   | 120                      | 6.7             | 9.6    | 6.9    |
| BZ029A124Z B    | 9.0           | 120      | 70            | 84   | 20                       | 5.8             | 8.7    | 6.0    |
| BZ02CA903Z B    | 12.0          | 90       | 90            | 108  | 20                       | 7.4             | 10.3   | 7.6    |
| BZ12GA124Z B    | 16.0          | 120      | 160           | 192  | 60                       | 9.1             | —      | 9.1    |

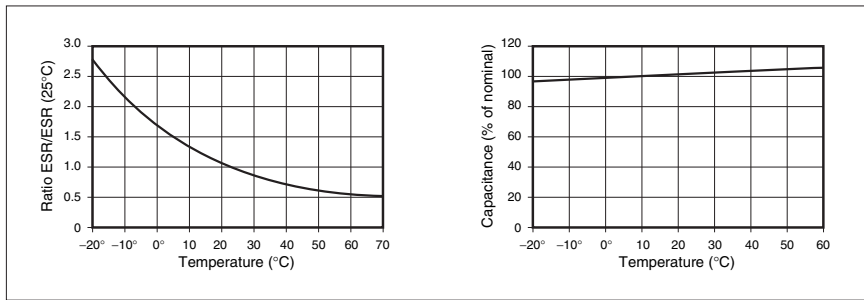
● BZ05/ BZ15 case size

| AVX Part Number | Rated Voltage | Cap (mF) | ESR (mΩ@1kHz) |      | Leakage Current (μA max) | Height (mm max) |        |
|-----------------|---------------|----------|---------------|------|--------------------------|-----------------|--------|
|                 |               |          | typ.          | max. |                          | N-lead          | S-lead |
| BZ054B223Z B    | 4.5           | 22       | 170           | 204  | 5                        | 2.3             | 2.3    |
| BZ154B473Z B    | 4.5           | 47       | 170           | 204  | 10                       | 2.3             | 2.3    |
| BZ055B153Z B    | 5.5           | 15       | 250           | 300  | 5                        | 2.7             | 2.7    |
| BZ055A333Z B    | 5.5           | 33       | 250           | 300  | 5                        | 3.5             | 3.5    |
| BZ055B333Z B    | 5.5           | 33       | 125           | 150  | 10                       | —               | 4.8    |
| BZ055A683Z B    | 5.5           | 68       | 125           | 150  | 10                       | —               | 6.1    |
| BZ155A104Z B    | 5.5           | 100      | 125           | 150  | 20                       | —               | 6.1    |
| BZ05CA103Z B    | 12.0          | 10       | 500           | 600  | 5                        | 6.5             | 6.5    |
| BZ05FB682Z B    | 15.0          | 6.8      | 500           | 600  | 10                       | 5.8             | 5.8    |
| BZ05KB472Z B    | 20.0          | 4.7      | 700           | 840  | 10                       | —               | 6.7    |

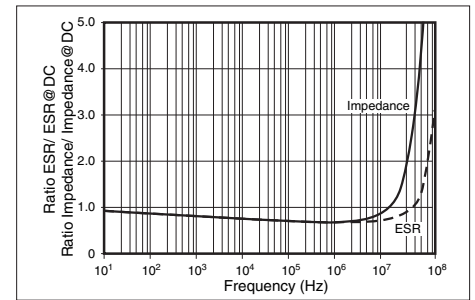
● BZ09 case size

| AVX Part Number | Rated Voltage | Cap (mF) | ESR (mΩ@1kHz) |      | Leakage Current (μA max) | Height (mm max) |        |
|-----------------|---------------|----------|---------------|------|--------------------------|-----------------|--------|
|                 |               |          | typ.          | max. |                          | N-lead          | S-lead |
| BZ094B153Z BA1  | 4.5           | 15       | 250           | 300  | 5                        | 2.4             | 2.3    |

## Typical Characteristics Over Temperature Range:



## Impedance and ESR Versus Frequency



## Lead Types

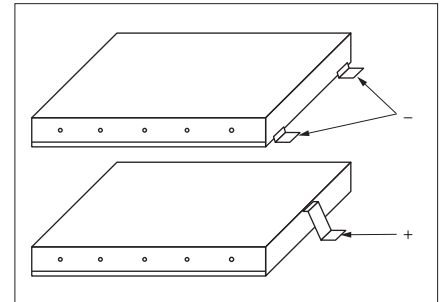
### • A Lead (Through Hole type)



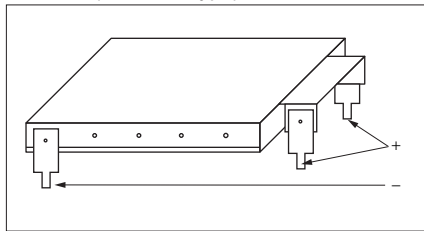
### • L Lead (4 terminals surface mount type)



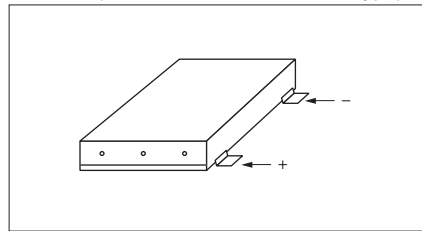
### • S Lead (3 terminals surface mount type)



### • H Lead (Stand off type)



### • N Lead (2 terminals surface mount type)



## Recommended Footprint Dimensions

### • A Lead



Pad dimensions: mm

| Case       | A<br>±0.05 | B<br>±0.05 | C<br>±0.05 | D<br>±0.1 |
|------------|------------|------------|------------|-----------|
| BZ01       | 17.25      | 8.9        | 28         | φ1.4      |
| BZ02/ BZ12 | 30.25      | 8.9        | 48         | φ1.4      |

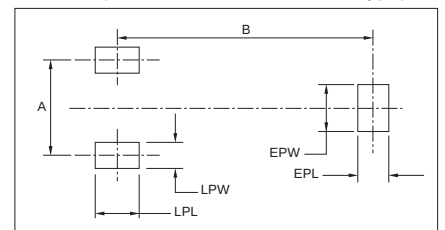
### • L Lead



Pad dimensions: mm

| Case | A<br>±0.1 | B<br>±0.1 | C<br>±0.1 | PL<br>±0.2 | PW<br>±0.2 |
|------|-----------|-----------|-----------|------------|------------|
| BZ02 | 32.2      | 10.8      | 48        | 3.2        | 3.7        |

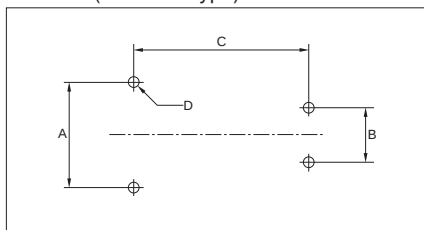
### • S Lead (3 terminals surface mount type)



Pad dimensions: mm

| Case | A<br>±0.1 | B<br>±0.1 | EPL<br>±0.1 | EPW<br>±0.1 | LPL<br>±0.1 | LPW<br>±0.1 |
|------|-----------|-----------|-------------|-------------|-------------|-------------|
| BZ01 | 13.0      | 35.1      | 4.5         | 6.0         | 5.8         | 3.5         |
| BZ05 | 10.0      | 25.0      | 3.0         | 4.5         | 2.9         | 4.5         |
| BZ09 | 10.0      | 22.0      | 3.0         | 4.5         | 2.9         | 4.5         |

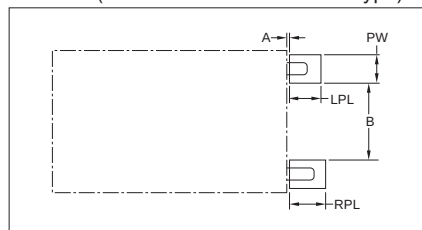
### • H Lead (Stand off type)



Pad dimensions: mm

| Case       | A<br>±0.05 | B<br>±0.05 | C<br>±0.05 | D<br>±0.1 |
|------------|------------|------------|------------|-----------|
| BZ01       | 17.25      | 8.9        | 28         | φ1.4      |
| BZ02/ BZ12 | 30.25      | 8.9        | 48         | φ1.4      |

### • N Lead (2 terminals surface mount type)



Pad dimensions: mm

| Case | A<br>±0.5 | B<br>±0.1 | PW<br>±0.1 | LPL<br>±0.1 | RPL<br>±0.1 |
|------|-----------|-----------|------------|-------------|-------------|
| BZ05 | 1.0       | 5.9       | 4.1        | 2.5         | 3.5         |
| BZ09 | 1.0       | 5.9       | 4.1        | 2.5         | 3.5         |

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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