



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 | 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)



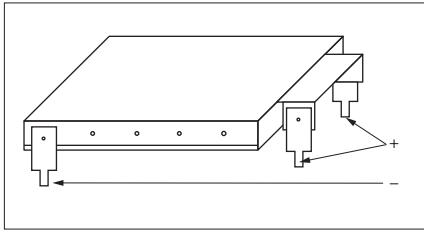
- L Lead (4 terminals surface mount type)



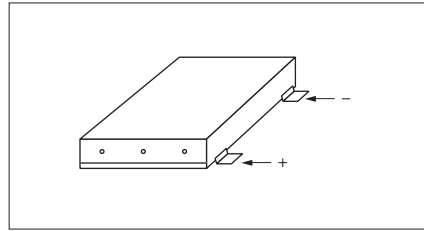
- S Lead (3 terminals surface mount type)



- 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 «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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