



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    |

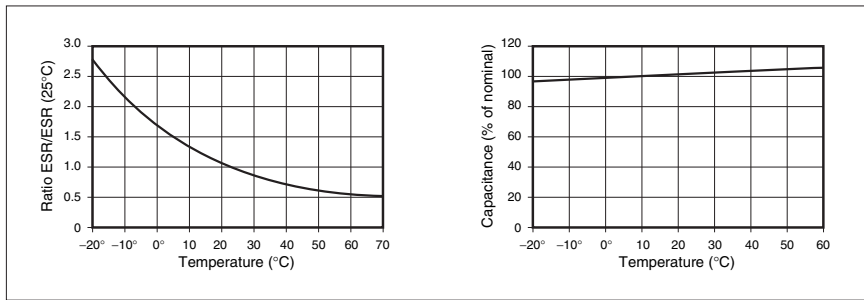
● BZ05/ BZ15 case size

| 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    |

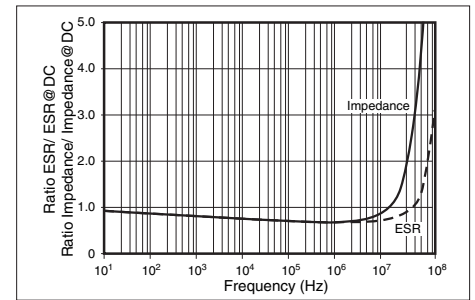
● BZ09 case size

| 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

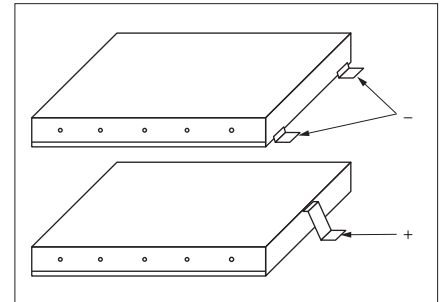
### • A Lead (Through Hole type)



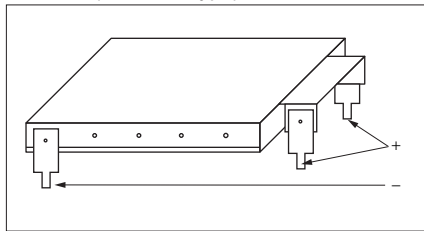
### • L Lead (4 terminals surface mount type)



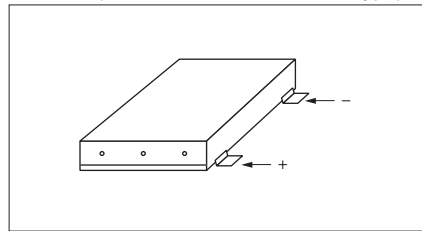
### • S Lead (3 terminals surface mount type)



### • 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      |

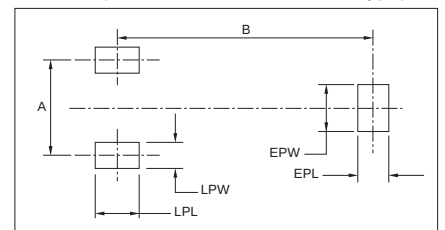
### • L Lead



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        |

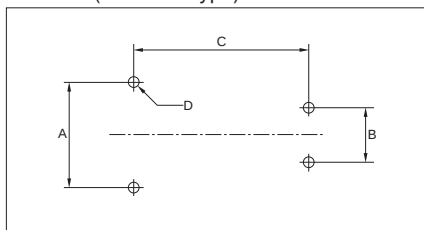
### • S Lead (3 terminals surface mount type)



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         |

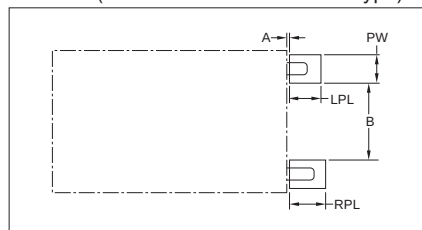
### • H Lead (Stand off type)



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         |

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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