



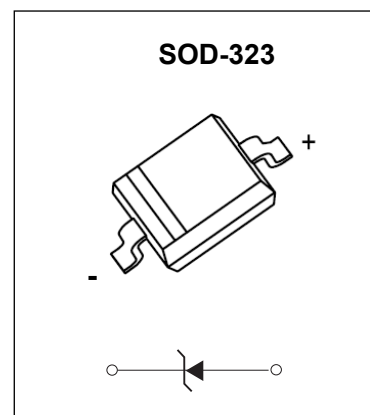
## BZT52C2V4S-BZT52C43S

### SOD-323 Plastic-Encapsulate Diodes

ZENER DIODE

#### FEATURES

- Planar die construction
- 200mW power dissipation on ceramic PBC
- General purpose, medium current
- Ideally suited for automated assembly processes
- Available in lead free version



#### Maximum Ratings ( $T_a=25^{\circ}\text{C}$ unless otherwise specified )

| Characteristic                                   | Symbol          | Value    | Unit                 |
|--------------------------------------------------|-----------------|----------|----------------------|
| Forward Voltage (Note 2) @ $I_F = 10\text{mA}$   | $V_F$           | 0.9      | V                    |
| Power Dissipation(Note 1)                        | $P_D$           | 200      | mW                   |
| Thermal Resistance from Junction to Ambient      | $R_{\theta JA}$ | 625      | $^{\circ}\text{C/W}$ |
| Operation Junction and Storage Temperature Range | $T_J, T_{stg}$  | -55~+150 | $^{\circ}\text{C}$   |



## BZT52C2V4S-BZT52C43S

### ELECTRICAL CHARACTERISTICS

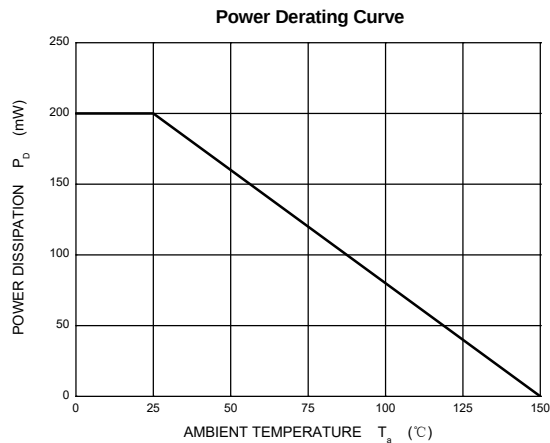
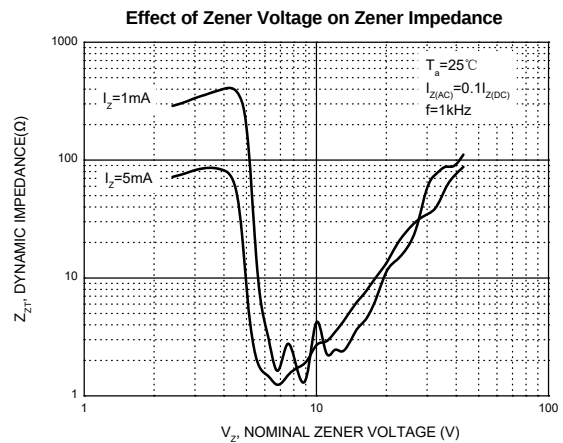
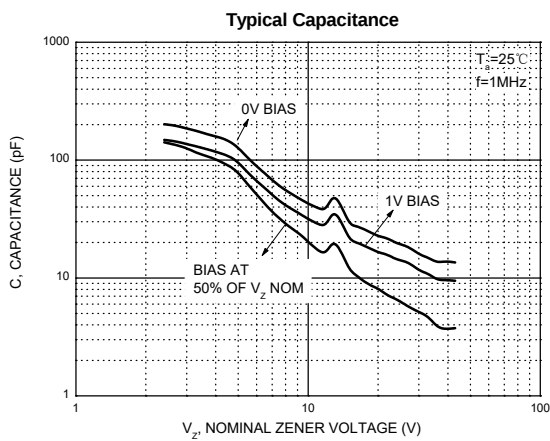
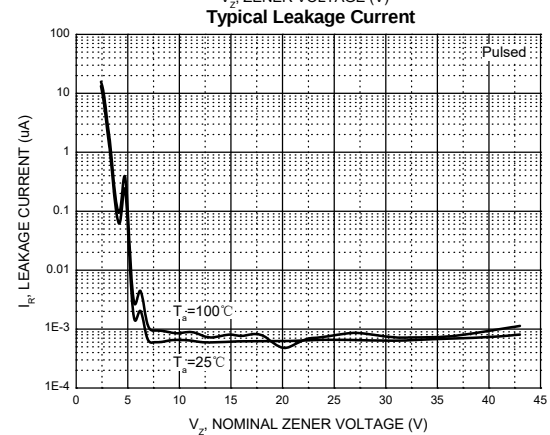
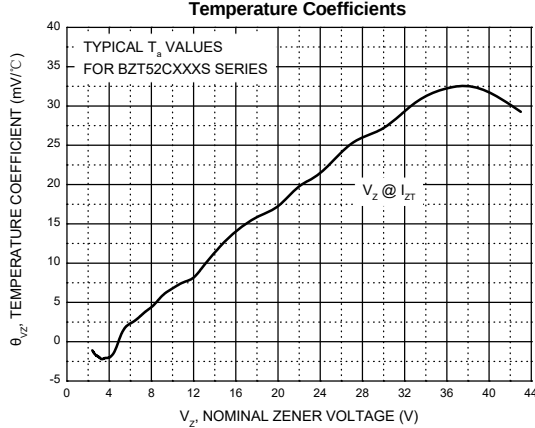
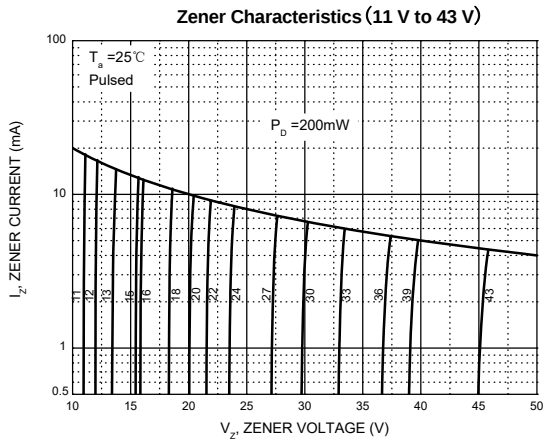
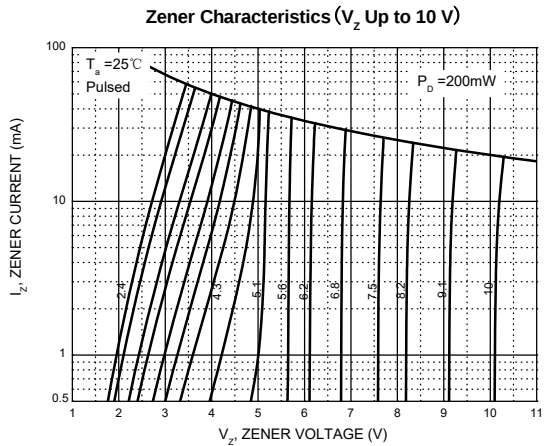
T<sub>a</sub>=25°C unless otherwise specified

| TYPE       | Marking | Zener Voltage Range (Note 2)    |        |        |                 | Maximum Zener Impedance<br>(Note 3) |                                  |                 | Maximum<br>Reverse<br>Current<br>(Note 2) |                | Typical<br>Temperature<br>Coefficient<br>@I <sub>ZTC</sub> mV/°C |      | Test<br>Current<br>I <sub>ZTC</sub> |
|------------|---------|---------------------------------|--------|--------|-----------------|-------------------------------------|----------------------------------|-----------------|-------------------------------------------|----------------|------------------------------------------------------------------|------|-------------------------------------|
|            |         |                                 |        |        |                 |                                     |                                  |                 |                                           |                |                                                                  |      |                                     |
|            |         | V <sub>Z</sub> @I <sub>ZT</sub> |        |        | I <sub>ZT</sub> | Z <sub>ZT</sub> @I <sub>ZT</sub>    | Z <sub>ZK</sub> @I <sub>ZK</sub> | I <sub>ZK</sub> | I <sub>R</sub>                            | V <sub>R</sub> | Min                                                              | Max  | mA                                  |
|            |         | Nom(V)                          | Min(V) | Max(V) | (mA)            | Ω                                   |                                  | (mA)            | μA                                        | V              |                                                                  |      |                                     |
| BZT52C2V4S | WX      | 2.4                             | 2.20   | 2.60   | 5               | 100                                 | 600                              | 1.0             | 50                                        | 1.0            | -3.5                                                             | 0    | 5                                   |
| BZT52C2V7S | W1      | 2.7                             | 2.5    | 2.9    | 5               | 100                                 | 600                              | 1.0             | 20                                        | 1.0            | -3.5                                                             | 0    | 5                                   |
| BZT52C3V0S | W2      | 3.0                             | 2.8    | 3.2    | 5               | 95                                  | 600                              | 1.0             | 10                                        | 1.0            | -3.5                                                             | 0    | 5                                   |
| BZT52C3V3S | W3      | 3.3                             | 3.1    | 3.5    | 5               | 95                                  | 600                              | 1.0             | 5                                         | 1.0            | -3.5                                                             | 0    | 5                                   |
| BZT52C3V6S | W4      | 3.6                             | 3.4    | 3.8    | 5               | 90                                  | 600                              | 1.0             | 5                                         | 1.0            | -3.5                                                             | 0    | 5                                   |
| BZT52C3V9S | W5      | 3.9                             | 3.7    | 4.1    | 5               | 90                                  | 600                              | 1.0             | 3                                         | 1.0            | -3.5                                                             | 0    | 5                                   |
| BZT52C4V3S | W6      | 4.3                             | 4.0    | 4.6    | 5               | 90                                  | 600                              | 1.0             | 3                                         | 1.0            | -3.5                                                             | 0    | 5                                   |
| BZT52C4V7S | W7      | 4.7                             | 4.4    | 5.0    | 5               | 80                                  | 500                              | 1.0             | 3                                         | 2.0            | -3.5                                                             | 0.2  | 5                                   |
| BZT52C5V1S | W8      | 5.1                             | 4.8    | 5.4    | 5               | 60                                  | 480                              | 1.0             | 2                                         | 2.0            | -2.7                                                             | 1.2  | 5                                   |
| BZT52C5V6S | W9      | 5.6                             | 5.2    | 6.0    | 5               | 40                                  | 400                              | 1.0             | 1                                         | 2.0            | -2                                                               | 2.5  | 5                                   |
| BZT52C6V2S | WA      | 6.2                             | 5.8    | 6.6    | 5               | 10                                  | 150                              | 1.0             | 3                                         | 4.0            | 0.4                                                              | 3.7  | 5                                   |
| BZT52C6V8S | WB      | 6.8                             | 6.4    | 7.2    | 5               | 15                                  | 80                               | 1.0             | 2                                         | 4.0            | 1.2                                                              | 4.5  | 5                                   |
| BZT52C7V5S | WC      | 7.5                             | 7.0    | 7.9    | 5               | 15                                  | 80                               | 1.0             | 1                                         | 5.0            | 2.5                                                              | 5.3  | 5                                   |
| BZT52C8V2S | WD      | 8.2                             | 7.7    | 8.7    | 5               | 15                                  | 80                               | 1.0             | 0.7                                       | 5.0            | 3.2                                                              | 6.2  | 5                                   |
| BZT52C9V1S | WE      | 9.1                             | 8.5    | 9.6    | 5               | 15                                  | 100                              | 1.0             | 0.5                                       | 6.0            | 3.8                                                              | 7.0  | 5                                   |
| BZT52C10S  | WF      | 10                              | 9.4    | 10.6   | 5               | 20                                  | 150                              | 1.0             | 0.2                                       | 7.0            | 4.5                                                              | 8.0  | 5                                   |
| BZT52C11S  | WG      | 11                              | 10.4   | 11.6   | 5               | 20                                  | 150                              | 1.0             | 0.1                                       | 8.0            | 5.4                                                              | 9.0  | 5                                   |
| BZT52C12S  | WH      | 12                              | 11.4   | 12.7   | 5               | 25                                  | 150                              | 1.0             | 0.1                                       | 8.0            | 6.0                                                              | 10.0 | 5                                   |
| BZT52C13S  | WI      | 13                              | 12.4   | 14.1   | 5               | 30                                  | 170                              | 1.0             | 0.1                                       | 8.0            | 7.0                                                              | 11.0 | 5                                   |
| BZT52C15S  | WJ      | 15                              | 13.8   | 15.6   | 5               | 30                                  | 200                              | 1.0             | 0.1                                       | 10.5           | 9.2                                                              | 13   | 5                                   |
| BZT52C16S  | WK      | 16                              | 15.3   | 17.1   | 5               | 40                                  | 200                              | 1.0             | 0.1                                       | 11.2           | 10.4                                                             | 14   | 5                                   |
| BZT52C18S  | WL      | 18                              | 16.8   | 19.1   | 5               | 45                                  | 225                              | 1.0             | 0.1                                       | 12.6           | 12.4                                                             | 16   | 5                                   |
| BZT52C20S  | WM      | 20                              | 18.8   | 21.2   | 5               | 55                                  | 225                              | 1.0             | 0.1                                       | 14.0           | 14.4                                                             | 18.0 | 5                                   |
| BZT52C22S  | WN      | 22                              | 20.8   | 23.3   | 5               | 55                                  | 250                              | 1.0             | 0.1                                       | 15.4           | 16.4                                                             | 20.0 | 5                                   |
| BZT52C24S  | WO      | 24                              | 22.8   | 25.6   | 5               | 70                                  | 250                              | 1.0             | 0.1                                       | 16.8           | 18.4                                                             | 22.0 | 5                                   |
| BZT52C27S  | WP      | 27                              | 25.1   | 28.9   | 2               | 80                                  | 300                              | 0.5             | 0.1                                       | 18.9           | 21.4                                                             | 25.3 | 2                                   |
| BZT52C30S  | WQ      | 30                              | 28.0   | 32.0   | 2               | 80                                  | 300                              | 0.5             | 0.1                                       | 21.0           | 24.4                                                             | 29.4 | 2                                   |
| BZT52C33S  | WR      | 33                              | 31.0   | 35.0   | 2               | 80                                  | 325                              | 0.5             | 0.1                                       | 23.1           | 27.4                                                             | 33.4 | 2                                   |
| BZT52C36S  | WS      | 36                              | 34.0   | 38.0   | 2               | 90                                  | 350                              | 0.5             | 0.1                                       | 25.2           | 30.4                                                             | 37.4 | 2                                   |
| BZT52C39S  | WT      | 39                              | 37.0   | 41.0   | 2               | 130                                 | 350                              | 0.5             | 0.1                                       | 27.3           | 33.4                                                             | 41.2 | 2                                   |
| BZT52C43S  | WU      | 43                              | 40.0   | 46.0   | 2               | 100                                 | 700                              | 1               | 0.1                                       | 32             | 10                                                               | 12   | 5                                   |



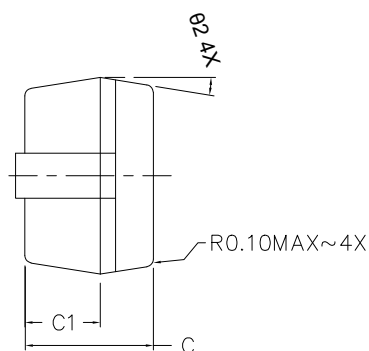
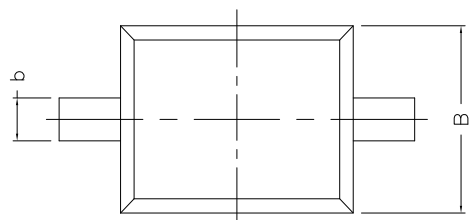
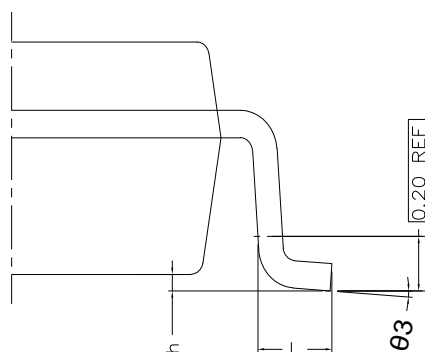
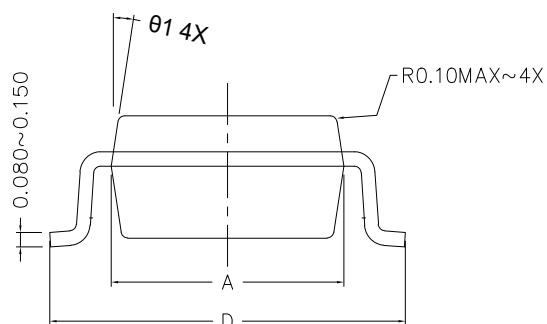
# BZT52C2V4S-BZT52C43S

## Typical Characteristics





## BZT52C2V4S-BZT52C43S



| COMMON DIMENSIONS<br>(UNITS OF MEASURE IS mm) |         |        |       |
|-----------------------------------------------|---------|--------|-------|
|                                               | MIN     | NORMAL | MAX   |
| A                                             | 1.600   | 1.700  | 1.800 |
| B                                             | 1.200   | 1.300  | 1.400 |
| C                                             | 0.750   | 0.850  | 0.950 |
| C1                                            | 0.450   | 0.500  | 0.550 |
| D                                             | 2.450   | 2.600  | 2.750 |
| L                                             | 0.200   | 0.300  | 0.400 |
| b                                             | 0.200   | 0.300  | 0.400 |
| h                                             | 0.010   | 0.050  | 0.100 |
| 01                                            | 9° TYPE |        |       |
| 02                                            | 9° TYPE |        |       |
| 03                                            | 0° ~ 8° |        |       |