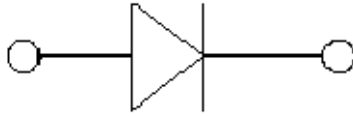


Zener Diodes



Features

- High reliability
- Very sharp reverse characteristic
- Low reverse current level



Mechanical Data

- **Package:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | VALUE |
|---|------------------|-------|---------------------------------|
| Power Dissipation | P _D | mW | 200 |
| Storage Temperature Range | T _{stg} | °C | -55~+150 |
| Maximum Junction Temperature | T _J | °C | -55~+150 |
| Maximum Regulator Current | I _{ZM} | mA | P _D / V _Z |
| Maximum Forward Voltage (I _F =10mA _{dc}) | V _F | V | 0.9 |
| Thermal Resistance Junction to Ambient Air* | R _{θJA} | °C /W | 650 |

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|------------------------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| BZT52C2V4S THRU BZT52C47S | F2 | Approximate 0.004 | 3000 | 30000 | 120000 | 7" reel |



BZT52C2V4S THRU BZT52C47S

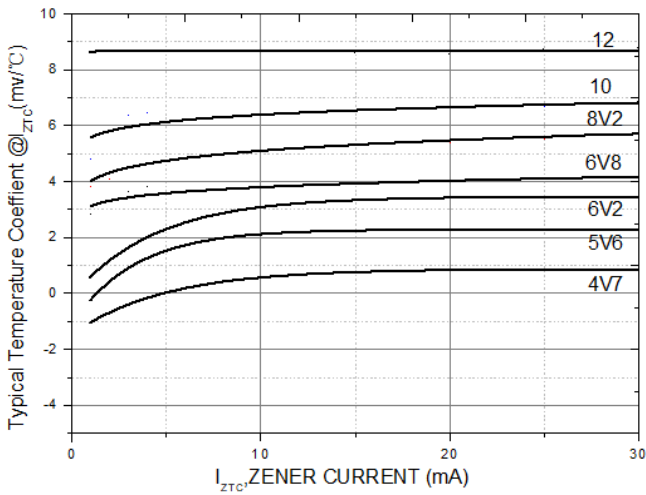
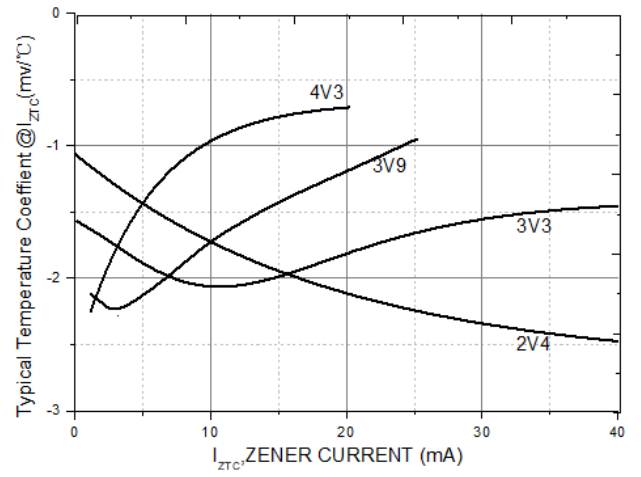
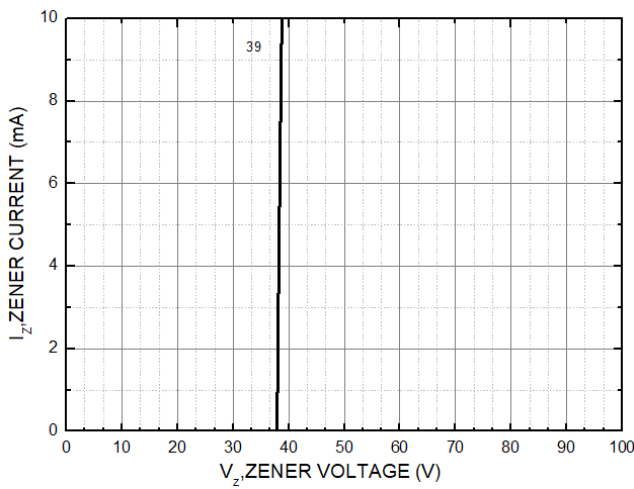
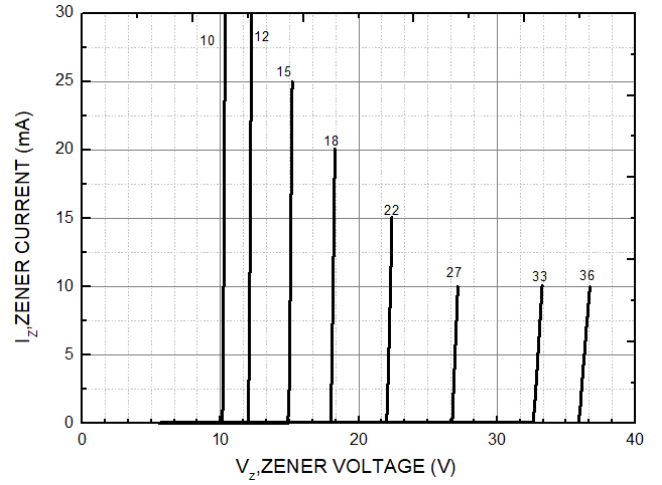
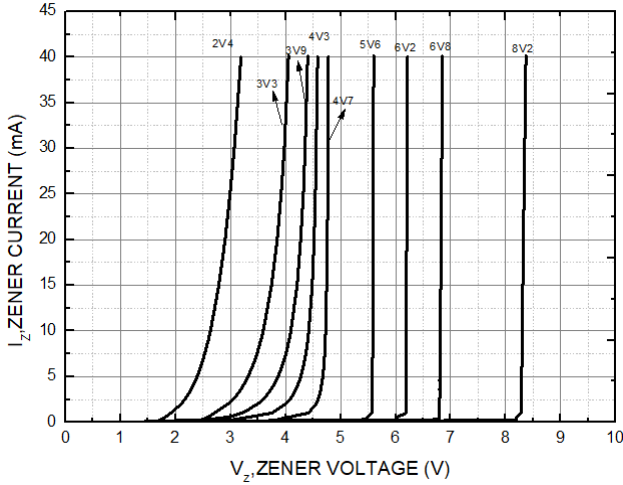
■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| Type Number | Device Marking | V _z at I _{zT} (V)* ¹ | | | Z _{zt} (Ω)* ² | | Z _{zk} (Ω)* ² | | I _R (μA)@V _R | | Typical Temperature Coefficient @I _{ZTC} | |
|-------------|----------------|---|------|-------|-----------------------------------|------|-----------------------------------|------|------------------------------------|--------------------|---|------|
| | | min. | typ. | max. | I _{zT} (mA) | max. | I _{zk} (mA) | max. | max | V _R (V) | mV/°C | |
| BZT52C2V4S | WX | 2.28 | 2.4 | 2.56 | 5 | 100 | 1.0 | 600 | 50 | 1.0 | -3.5 | 0 |
| BZT52C2V7S | W1 | 2.5 | 2.7 | 2.9 | 5 | 100 | 1.0 | 600 | 20 | 1.0 | -3.5 | 0 |
| BZT52C3V0S | W2 | 2.8 | 3.0 | 3.2 | 5 | 95 | 1.0 | 600 | 10 | 1.0 | -3.5 | 0 |
| BZT52C3V3S | W3 | 3.1 | 3.3 | 3.5 | 5 | 95 | 1.0 | 600 | 5 | 1.0 | -3.5 | 0 |
| BZT52C3V6S | W4 | 3.4 | 3.6 | 3.8 | 5 | 90 | 1.0 | 600 | 5 | 1.0 | -3.5 | 0 |
| BZT52C3V9S | W5 | 3.7 | 3.9 | 4.1 | 5 | 90 | 1.0 | 600 | 3 | 1.0 | -3.5 | 0 |
| BZT52C4V3S | W6 | 4.0 | 4.3 | 4.6 | 5 | 90 | 1.0 | 600 | 3 | 1.0 | -3.5 | 0 |
| BZT52C4V7S | W7 | 4.4 | 4.7 | 5.0 | 5 | 80 | 1.0 | 500 | 3 | 2.0 | -3.5 | 0.2 |
| BZT52C5V1S | W8 | 4.8 | 5.1 | 5.4 | 5 | 60 | 1.0 | 480 | 2 | 2.0 | -2.7 | 1.2 |
| BZT52C5V6S | W9 | 5.2 | 5.6 | 6.0 | 5 | 40 | 1.0 | 400 | 1 | 2.0 | -2.0 | 2.5 |
| BZT52C6V2S | WA | 5.8 | 6.2 | 6.6 | 5 | 10 | 1.0 | 150 | 3 | 4.0 | 0.4 | 3.7 |
| BZT52C6V8S | WB | 6.4 | 6.8 | 7.2 | 5 | 15 | 1.0 | 80 | 2 | 4.0 | 1.2 | 4.5 |
| BZT52C7V5S | WC | 7.0 | 7.5 | 7.9 | 5 | 15 | 1.0 | 80 | 1 | 5.0 | 2.5 | 5.3 |
| BZT52C8V2S | WD | 7.7 | 8.2 | 8.7 | 5 | 15 | 1.0 | 80 | 0.7 | 5.0 | 3.2 | 6.2 |
| BZT52C9V1S | WE | 8.5 | 9.1 | 9.6 | 5 | 15 | 1.0 | 100 | 0.5 | 6.0 | 3.8 | 7.0 |
| BZT52C10S | WF | 9.4 | 10 | 10.6 | 5 | 20 | 1.0 | 150 | 0.2 | 7.0 | 4.5 | 8.0 |
| BZT52C11S | WG | 10.4 | 11 | 11.6 | 5 | 20 | 1.0 | 150 | 0.1 | 8.0 | 5.4 | 9.0 |
| BZT52C12S | WH | 11.4 | 12 | 12.7 | 5 | 25 | 1.0 | 150 | 0.1 | 8.0 | 6.0 | 10.0 |
| BZT52C13S | WI | 12.4 | 13 | 14.1 | 5 | 30 | 1.0 | 170 | 0.1 | 8.0 | 7.0 | 11.0 |
| BZT52C15S | WJ | 14.25 | 15 | 15.75 | 5 | 30 | 1.0 | 200 | 0.1 | 10.5 | 9.2 | 13.0 |
| BZT52C16S | WK | 15.3 | 16 | 17.1 | 5 | 40 | 1.0 | 200 | 0.1 | 11.2 | 10.4 | 14.0 |
| BZT52C18S | WL | 16.8 | 18 | 19.1 | 5 | 45 | 1.0 | 225 | 0.1 | 12.6 | 12.4 | 16.0 |
| BZT52C20S | WM | 18.8 | 20 | 21.2 | 5 | 55 | 1.0 | 225 | 0.1 | 14.0 | 14.4 | 18.0 |
| BZT52C22S | WN | 20.8 | 22 | 23.3 | 5 | 55 | 1.0 | 250 | 0.1 | 15.4 | 16.4 | 20.0 |
| BZT52C24S | WO | 22.8 | 24 | 25.6 | 5 | 70 | 1.0 | 250 | 0.1 | 16.8 | 18.4 | 22.0 |
| BZT52C27S | WP | 25.1 | 27 | 28.9 | 2 | 80 | 0.5 | 300 | 0.1 | 18.9 | 21.4 | 25.3 |
| BZT52C30S | WQ | 28 | 30 | 32 | 2 | 80 | 0.5 | 300 | 0.1 | 21.0 | 24.4 | 29.4 |
| BZT52C33S | WR | 31 | 33 | 35 | 2 | 80 | 0.5 | 325 | 0.1 | 23.1 | 27.4 | 33.4 |
| BZT52C36S | WS | 34 | 36 | 38 | 2 | 90 | 0.5 | 350 | 0.1 | 25.2 | 30.4 | 37.4 |
| BZT52C39S | WT | 37 | 39 | 41 | 2 | 130 | 0.5 | 350 | 0.1 | 27.3 | 33.4 | 41.2 |
| BZT52C43S | WU | 40 | 43 | 46 | 5 | 100 | 1.0 | 750 | 0.1 | 32 | 10.0 | 12.0 |
| BZT52C47S | WV | 44 | 47 | 50 | 5 | 100 | 1.0 | 750 | 0.1 | 35 | 10.0 | 12.0 |



BZT52C2V4S THRU BZT52C47S

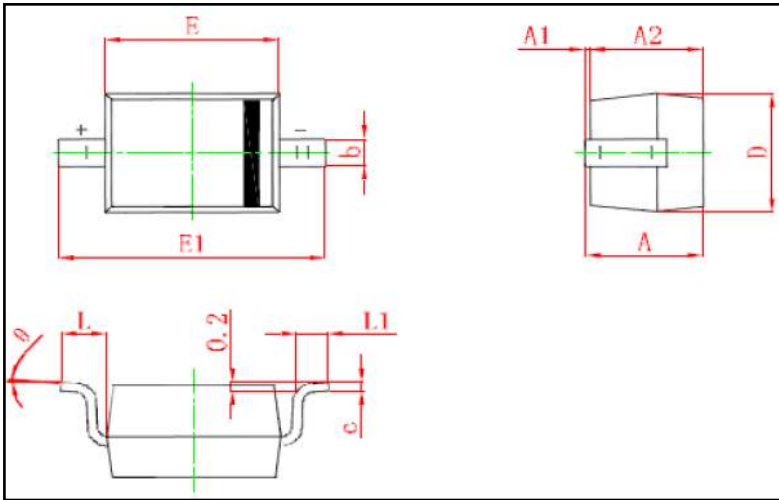
■ Characteristics (Typical)





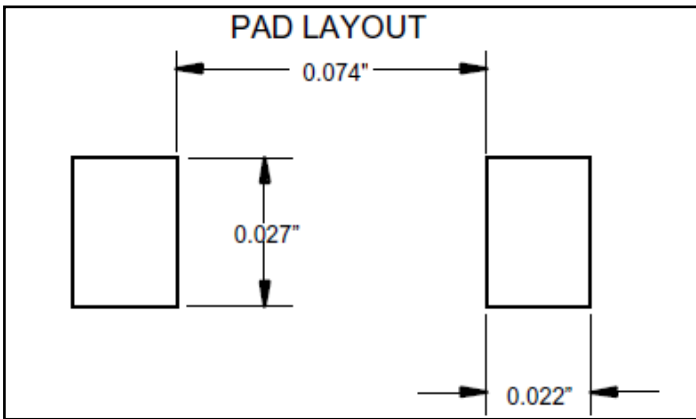
BZT52C2V4S THRU BZT52C47S

■ Outline Dimensions



| Symbol | Min. (mm) | Max. (mm) |
|----------|-----------|-----------|
| A | | 1.000 |
| A1 | 0.000 | 0.100 |
| A2 | 0.800 | 0.900 |
| b | 0.250 | 0.400 |
| c | 0.080 | 0.150 |
| D | 1.200 | 1.400 |
| E | 1.600 | 1.800 |
| E1 | 2.500 | 2.700 |
| L | 0.475REF | |
| L1 | 0.250 | 0.400 |
| θ | 0° | 8° |

■ Soldering Footprint





BZT52C2V4S THRU BZT52C47S

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.