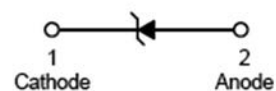


Surface Mount Zener Diode



SOD-323

Features:

- Planar Die Construction
- General Purpose, Medium Current
- Ideally Suited For Automated Assembly Processes

Applications:

- Zener diode
- Ultra-small surface mount package

Maximum Rating @ $T_A = 25^{\circ}\text{C}$ unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|---|-----------------|-------------|----------------------|
| Forward voltage @ $I_F = 10\text{mA}$ | V_F | 0.9 | V |
| Power dissipation | P_D | 200 | mW |
| Thermal resistance, junction to ambient air | $R_{\theta JA}$ | 625 | $^{\circ}\text{C/W}$ |
| Junction temperature | T_j | 150 | $^{\circ}\text{C}$ |
| Storage temperature range | T_{stg} | -65 to +150 | $^{\circ}\text{C}$ |

Note : Valid provided that device terminals are kept at ambient temperature.
Short duration test pulse used in minimize self-heating effect.
 $f = 1\text{kHz}$.

Surface Mount Zener Diode

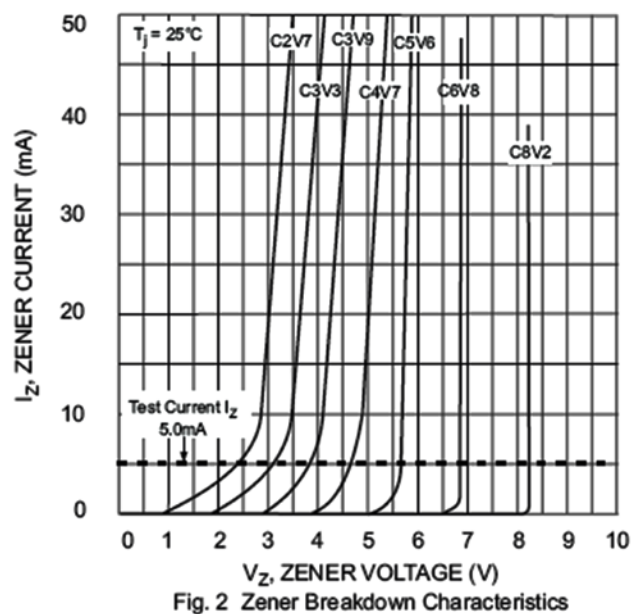
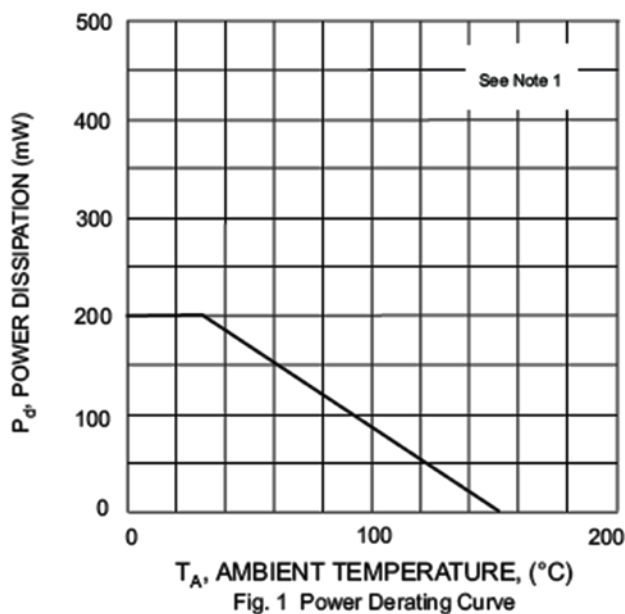


Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

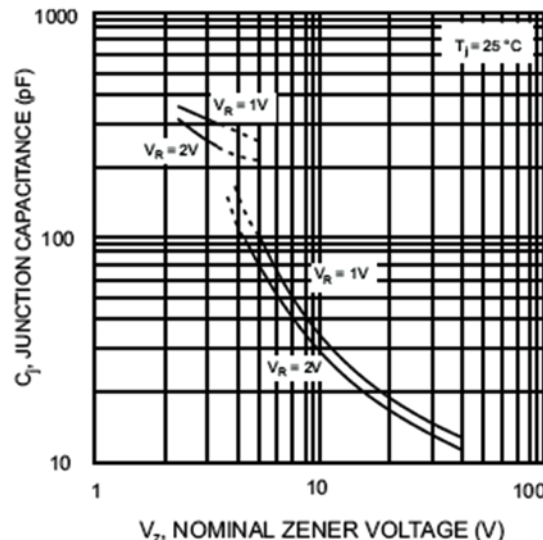
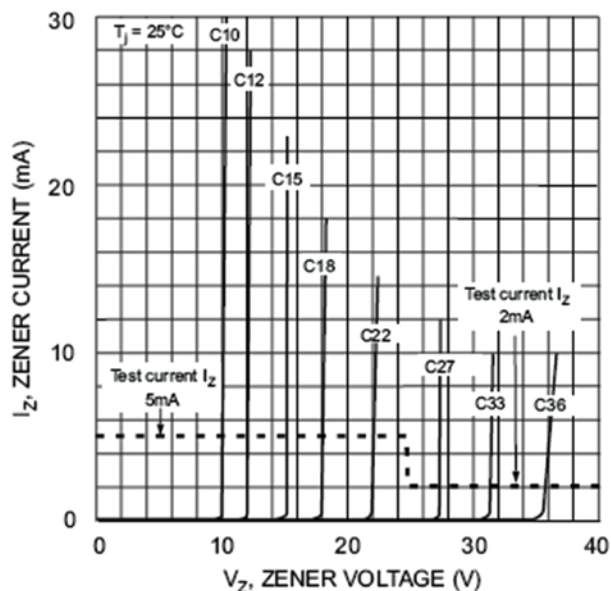
| Type Number | Marking Code | Zener Voltage Range | | | | Maximum Zener Impedance | | | Maximum Reverse Current | | Typical Temperature Coefficient @ I_{ZTC} mV/ $^\circ\text{C}$ | |
|-------------|--------------|---------------------|--------|--------|----------|-------------------------|-------------------|----------|-------------------------|---------|--|-----|
| | | $V_z @ I_{ZT}$ | | | I_{ZT} | $Z_{ZT} @ I_{ZT}$ | $Z_{ZK} @ I_{ZK}$ | I_{ZK} | I_R | @ V_R | | |
| | | Nom(V) | Min(V) | Max(V) | mA | Ω | | mA | μA | V | Min | Max |
| BZT52C18S | WL | 18 | 16.8 | 19.1 | 5 | 45 | 225 | 1 | 0.1 | 12.6 | 12.4 | 16 |

Note : Valid provided that device terminals are kept at ambient temperature.
 Tested with pulses, period = 5ms, pulse width = 300 μs .
 $f = 1\text{kHz}$.

Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

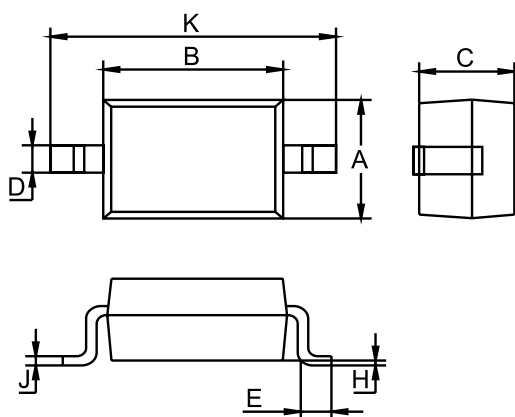


Surface Mount Zener Diode



Package Outline

Plastic surface mounted package

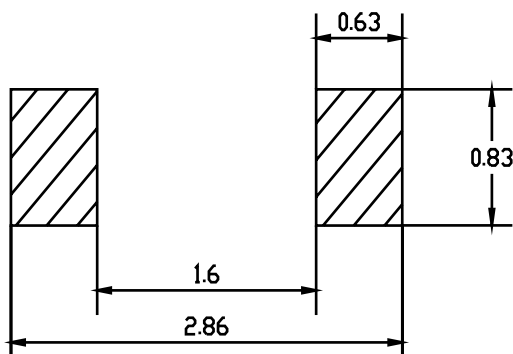


| SOD-323 | | |
|----------------------|-------------|-------|
| Dim | Min | Max |
| A | 1.275 | 1.325 |
| B | 1.675 | 1.725 |
| C | 0.9 Typical | |
| D | 0.25 | 0.35 |
| E | 0.27 | 0.37 |
| H | 0.02 | 0.1 |
| J | 0.1 Typical | |
| K | 2.6 | 2.7 |
| All Dimensions in mm | | |

Surface Mount Zener Diode



Soldering Footprint



Dimensions : Millimetres

Package Information

| Device | Package | Shipping |
|---------------|---------|-------------------|
| BZT52C18S-7-F | SOD-323 | 3,000/Tape & Reel |

Part Number Table

| Description | Part Number |
|---------------------------|---------------|
| Surface Mount Zener Diode | BZT52C18S-7-F |

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