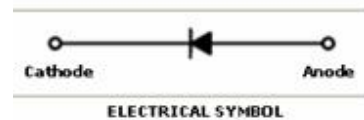


200mW SOD-323 SURFACE MOUNT
Small Outline Flat Lead Plastic Package
Fast Switching Diode

Green Product



SOD-323 Flat Lead



Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------|-------------------------------------|-------------|------------------|
| P_D | Power Dissipation | 200 | mW |
| T_{STG} | Storage Temperature Range | -65 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | +150 | $^\circ\text{C}$ |
| V_{RSM} | Non-Repetitive Peak Reverse Voltage | 100 | V |
| V_{RRM} | Repetitive Peak Reverse Voltage | 75 | V |
| I_{FRM} | Repetitive Peak Forward Current | 300 | mA |
| I_O | Continuous Forward Current | 150 | mA |

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

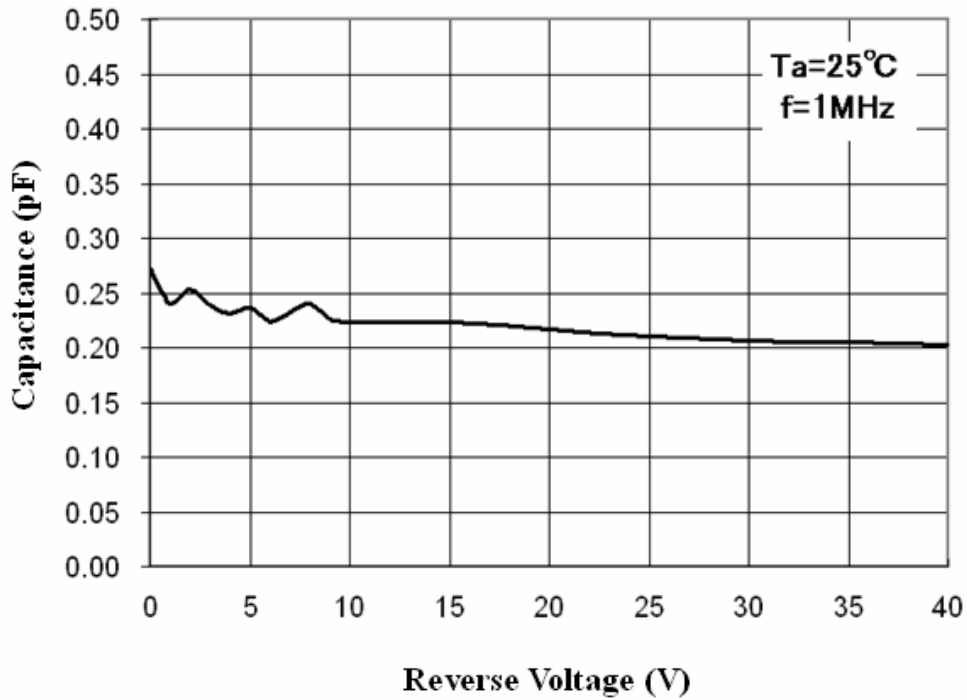
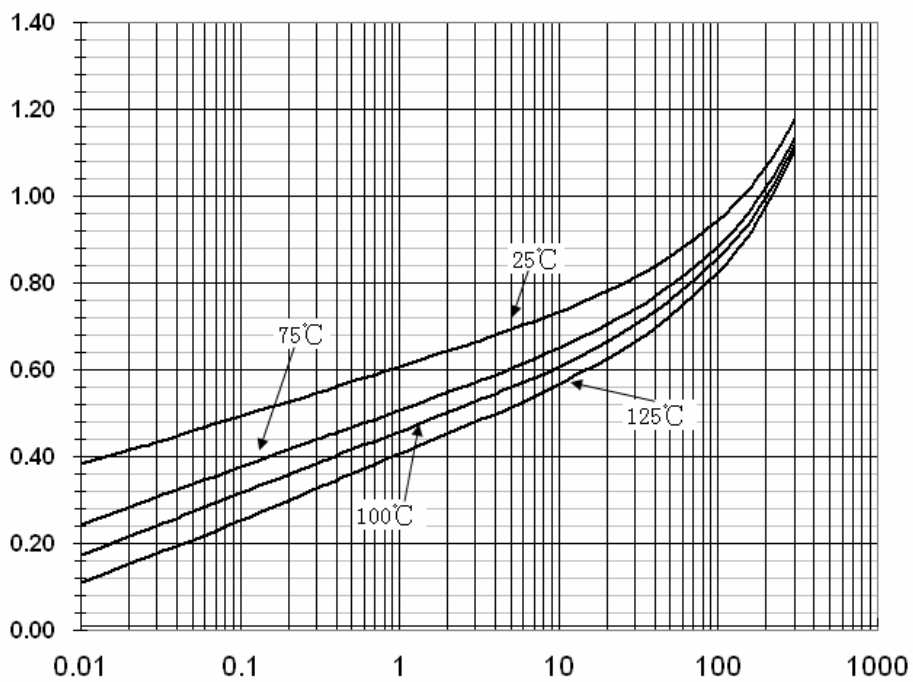
- Fast Switching Device ($T_{RR} < 4.0 \text{ nS}$)
- General Purpose Diodes
- Flat Lead SOD-323 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

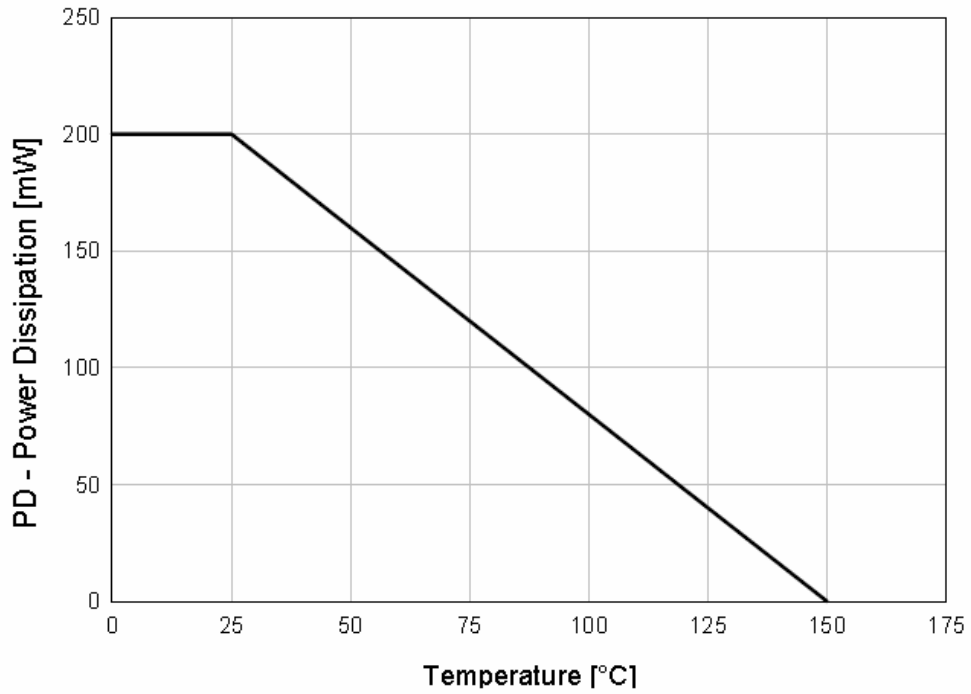
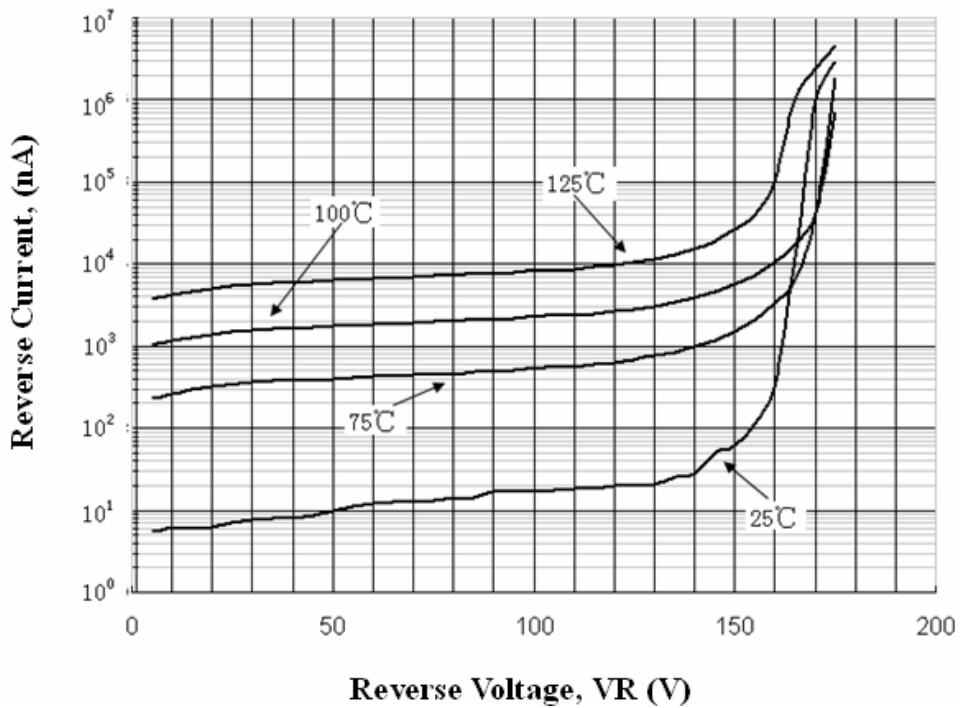
DEVICE MARKING CODE:

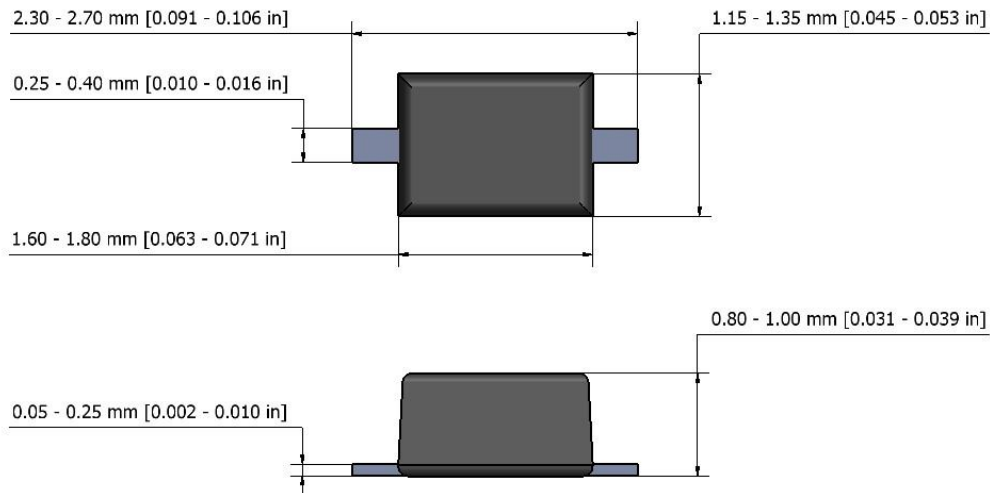
| Device Type | Device Marking |
|-------------|----------------|
| 1N4148WS | S1 |
| 1N4448WS | S2 |
| 1N914BWS | S3 |

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

| Symbol | Parameter | Test Condition | Limits | | Unit |
|----------|-------------------------|--|--------|------|---------------|
| | | | Min | Max | |
| B_V | Breakdown Voltage | $I_R = 100\mu\text{A}$ | 100 | | Volts |
| | | $I_R = 5\mu\text{A}$ | 75 | | |
| I_R | Reverse Leakage Current | $V_R = 20\text{V}$ | | 25 | nA |
| | | $V_R = 75\text{V}$ | | 5 | μA |
| V_F | Forward Voltage | 1N4448WS, 1N914BWS $I_F = 5\text{mA}$ | 0.62 | 0.72 | Volts |
| | | 1N4148WS $I_F = 10\text{mA}$ | | 1.0 | |
| | | 1N4448WS, 1N914BWS $I_F = 100\text{mA}$ | | 1.0 | |
| T_{RR} | Reverse Recovery Time | $I_F = 10\text{mA}$ $I_R = 60\text{mA}$ $R_L = 100\Omega$ $I_{RR} = 1\text{mA}$ | | 4 | nS |
| C | Capacitance | $V_R = 0\text{V}, f = 1\text{MHz}$ | | 4 | pF |

Typical Performance Characteristics
Total Capacitance

Forward Voltage vs Ambient Temperature


Power Derating Curve

Reverse Current vs Reverse Voltage



SOD-323 Package Outline

NOTE: The above package outline is similar to JEITA SC-90.

This datasheet presents technical data of Tak Cheong's Zener Diodes. Complete specifications for the individual devices are provided in the form of datasheets. A comprehensive Selector Guide is included to simplify the task of choosing the best set of components required for a specific application. For additional information, please visit our website <http://www.takcheong.com>.

Although information in this datasheet has been carefully checked, no responsibility for the inaccuracies can be assumed by Tak Cheong. Please consult your nearest Tak Cheong's sales office for further assistance.

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