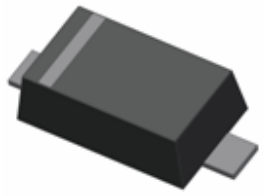
TAK CHEONG®

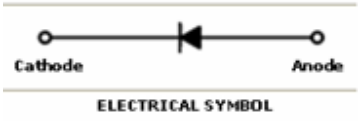
SEMICONDUCTOR

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

Green Product



SOD-323 Flat Lead




ELECTRICAL SYMBOL

### Absolute Maximum Ratings
$T_A$ = 25°C unless otherwise noted

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $P_D$ | Power Dissipation | 200 | mW |
| $T_{STG}$ | Storage Temperature Range | -65 to +150 | °C |
| $T_J$ | Operating Junction Temperature | +150 | °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 |
| $I_{FSM}$ | Peak Forward Surge Current (Pulse Width=1us) | 2 | A |

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

### Specification Features:

- Fast Switching Device ($T_{RR}$ <4.0 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:**

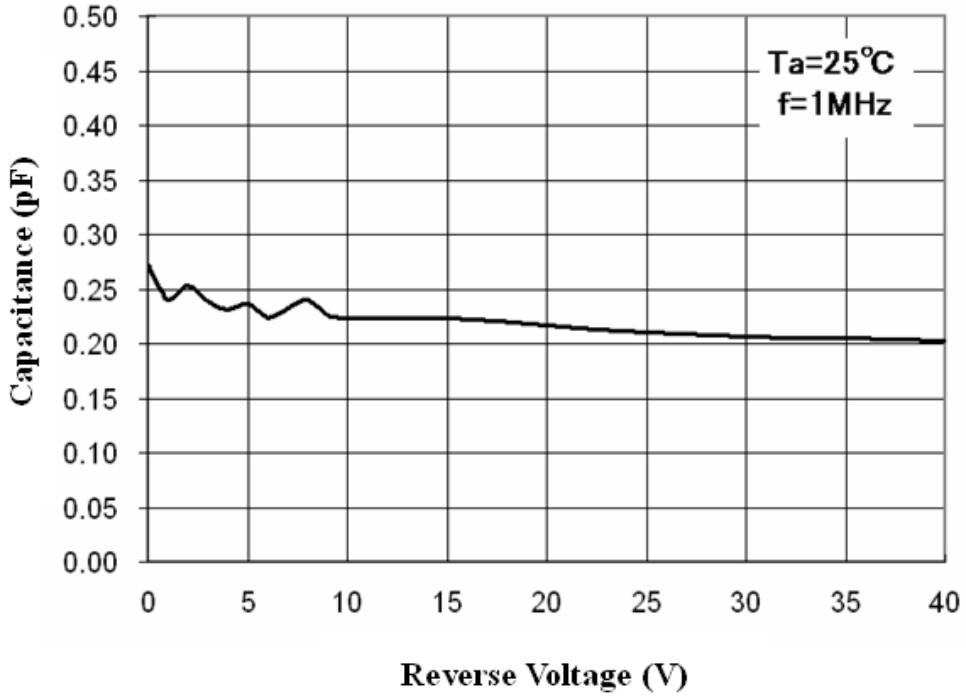
| Device Type | Device Marking |
|---|---|
| 1N4148WS | S1 |
| 1N4448WS | S2 |
| 1N914BWS | S3 |

### Electrical Characteristics
$T_A$ = 25°C unless otherwise noted

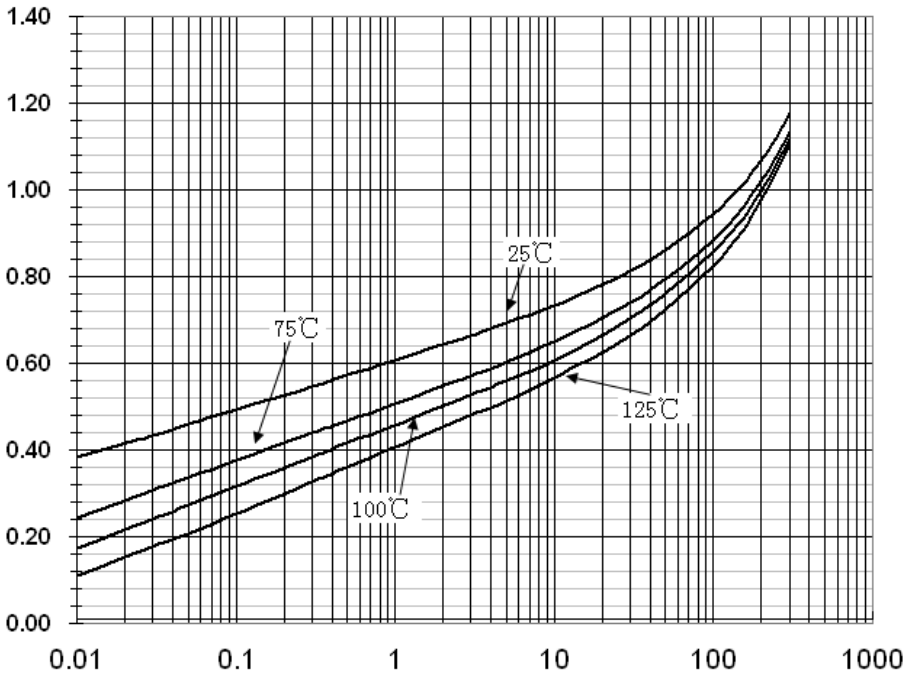
| Symbol | Parameter | | Test Condition | Limits Min | Limits Max | Unit |
|---|---|---|---|---|---|---|
| $B_V$ | Breakdown Voltage | | $I_R$=100µA | 100 | | Volts |
| | | | $I_R$=5µA | 75 | | |
| $I_R$ | Reverse Leakage Current | | $V_R$=20V | | 25 | nA |
| | | | $V_R$=75V | | 5 | µA |
| $V_F$ | Forward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

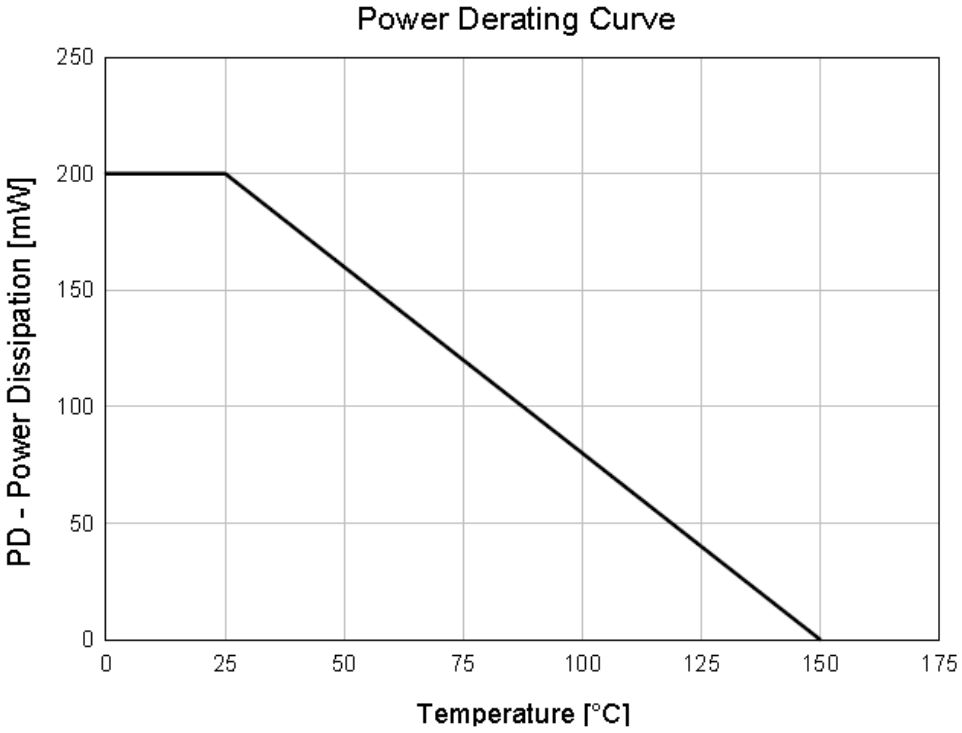
**Typical Performance Characteristics**

**Total Capacitance**

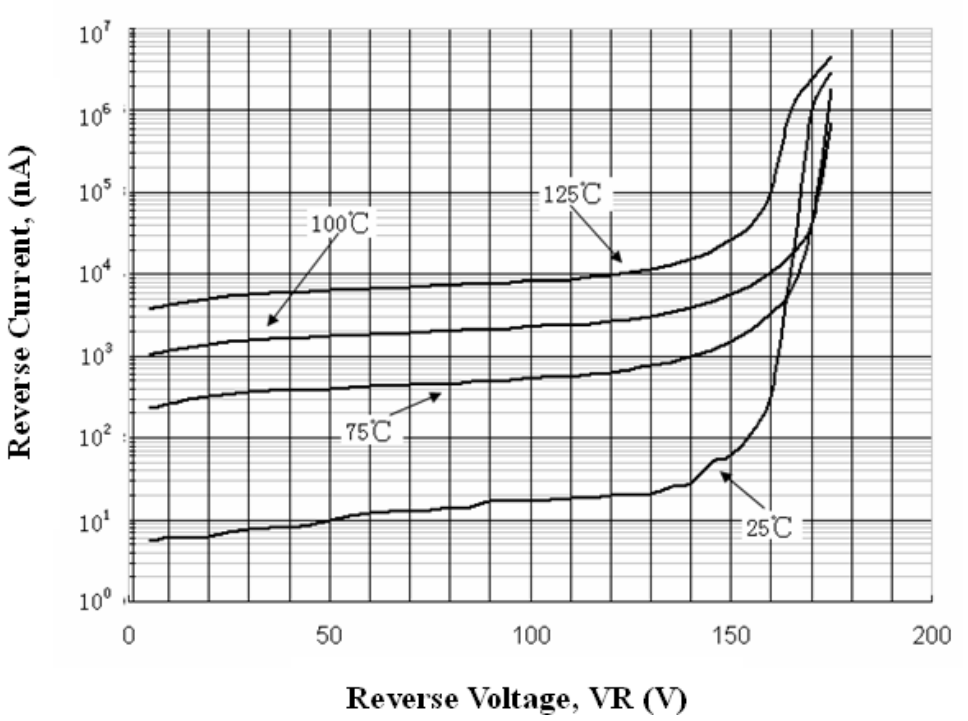



**Forward Voltage vs Ambient Temperature**

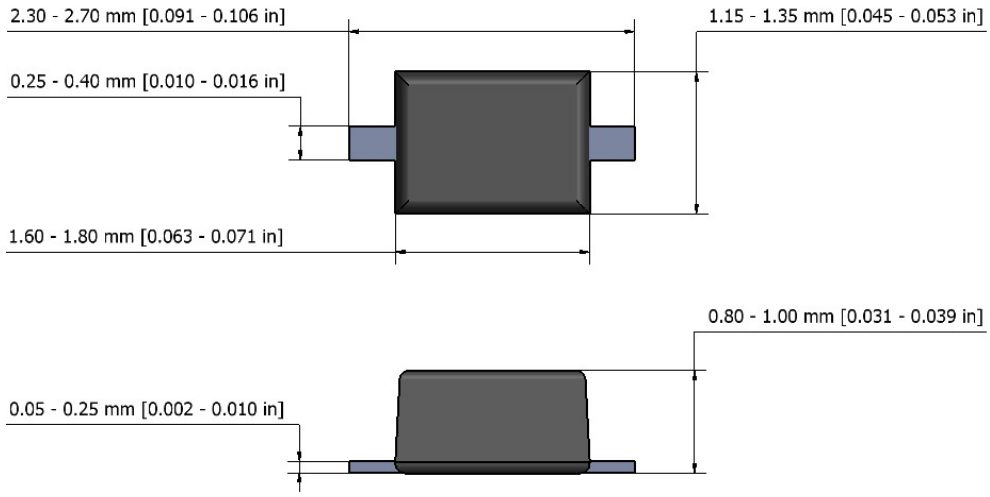





**Reverse Current vs Reverse VoltageReverse**



## SOD-323 Package Outline




NOTES:
1. The above package outline is similar to JEITA SC-90.
2. Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

# NOTICE

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

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 with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damagers resulting from such improper use of sale.

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