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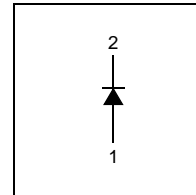
Small Signal Diodes

Features

- Low Forward Voltage Drop
- Fast switching
- Very Small and Thin SMD package
- Profile height, 0.43mm max
- Footprint, 1.0 x 0.6mm



Connection Diagram



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

| Symbol | Parameter | Value | Unit |
|----------------|--|-------------|------------------|
| V_{RRM} | Maximum Repetitive Reverse Voltage | 85 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current | 150 | mA |
| I_{FSM} | Forward Surge Current (8.3mS Single Half Sine-Wave) | 500 | mA |
| T_J, T_{STG} | Operating Junction & Storage Temperature Range | -55 to +150 | $^\circ\text{C}$ |

* These ratings are limiting values above which the serviceability of the diode may be impaired. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

| Symbol | Parameter | Value | Unit |
|-----------------|---|-------|--------------------|
| P_D | Power Dissipation | 227 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient * | 520 | $^\circ\text{C/W}$ |

* Minimum land pad.

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

| Symbol | Parameter | Test Conditions | Min. | Max. | Unit |
|----------|-----------------------|--|------|------|---------------|
| V_R | Breakdown Voltage | $I_R = 100\mu\text{A}$ | 85 | | V |
| V_F | Forward Voltage | $I_F = 1\text{mA}$ | | 715 | mV |
| | | $I_F = 10\text{mA}$ | | 855 | mV |
| | | $I_F = 50\text{mA}$ | | 1.0 | V |
| | | $I_F = 150\text{mA}$ | | 1.25 | V |
| I_R | Reverse Leakage | $V_R = 75\text{V}$ | | 1.0 | μA |
| | | $V_R = 25\text{V}@150^\circ\text{C}$ | | 30 | μA |
| | | $V_R = 75\text{V}@150^\circ\text{C}$ | | 50 | μA |
| t_{rr} | Reverse Recovery Time | $I_F = I_R = 10\text{mA}, i_{rr} = 0.1I_R$ | | 8.0 | nS |
| C_j | Junction Capacitance | $V_R = 0, f = 1.0\text{MHz}$ | | 2.0 | pF |

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

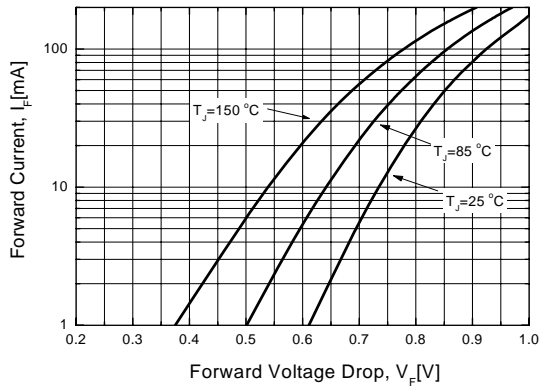


Figure 2. Reverse Leakage Current

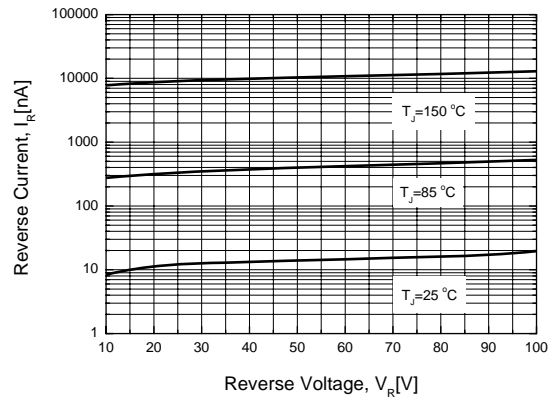


Figure 3. Junction Capacitance

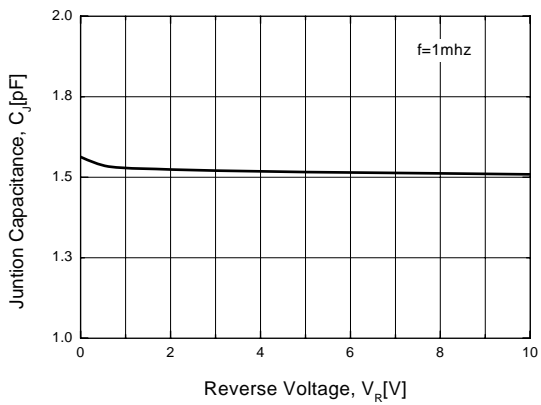
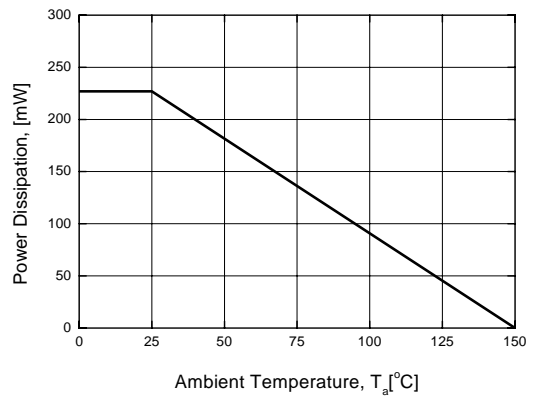
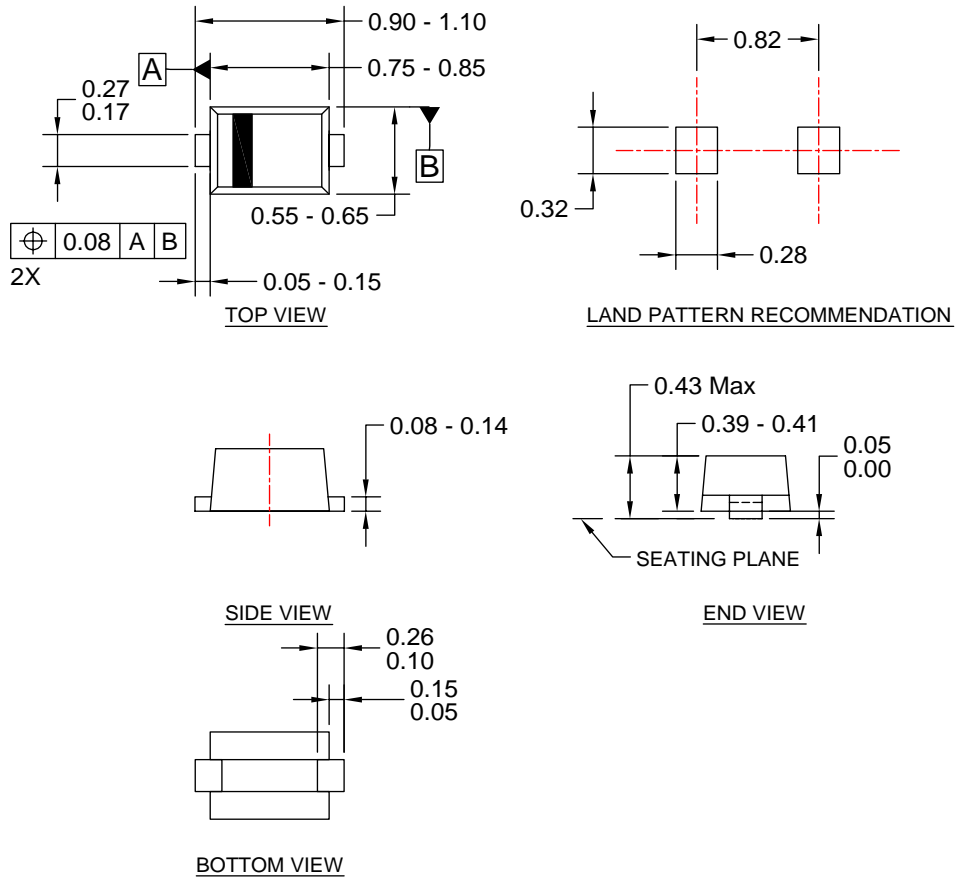


Figure 4. Power Derating



Physical Dimensions

SOD-923F



NOTES:

- A) THIS PACKAGE DOES NOT COMPLY TO ANY CURRENT PACKAGING STANDARD.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) BODY DIMENSIONS ARE INCLUSIVE OF BURRS, AND MOLD FLASH.
- D) DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994
- E) LANDPATTERN BASED ON NOMINAL PACKAGE DIMENSIONS.
- F) DRAWING FILE NAME : SOD923F1REV2

Dimensions in Millimeters



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