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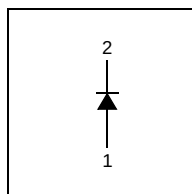
# RB751SL

## Schottky Barrier 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                     | 30          | V                |
| $I_{F(AV)}$    | Average Rectified Forward Current                      | 30          | mA               |
| $I_{FSM}$      | Forward Surge Current<br>(8.3ms Single Half Sine-Wave) | 200         | mA               |
| $P_D$          | Power Dissipation                                      | 227         | mW               |
| $T_J, T_{STG}$ | 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               |
|-----------------|-------------------------------------------|-------|--------------------|
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient * | 550   | $^\circ\text{C/W}$ |

\* 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     | $I_R = 10\mu\text{A}$                         | 30   |      | V             |
| $V_F$    | Forward Voltage       | $I_F = 1\text{mA}$                            |      | 370  | mV            |
| $I_R$    | Reverse Leakage       | $V_R = 30\text{V}$                            |      | 0.5  | $\mu\text{A}$ |
| $t_{rr}$ | Reverse Recovery Time | $I_F = I_R = 10\text{mA}$ , $i_{rr} = 0.1I_R$ |      | 8.0  | nS            |
| $C_j$    | Junction Capacitance  | $V_R = 1\text{V}$ , $f = 1.0\text{MHz}$       |      | 2.5  | pF            |

## Typical Performance Characteristics

Figure 1. Forward Current Characteristics

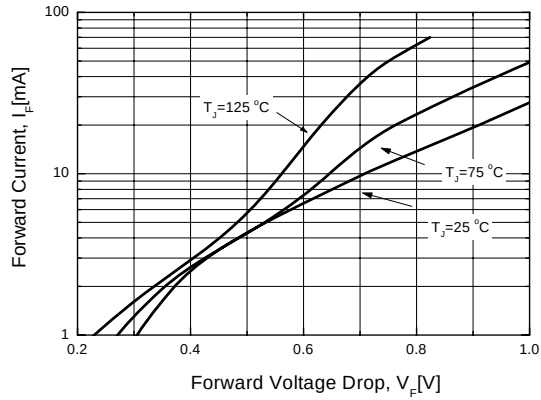


Figure 2. Reverse Leakage Current

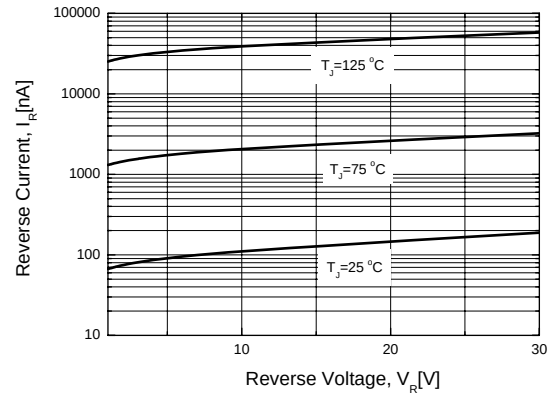


Figure 3. Junction Capacitance

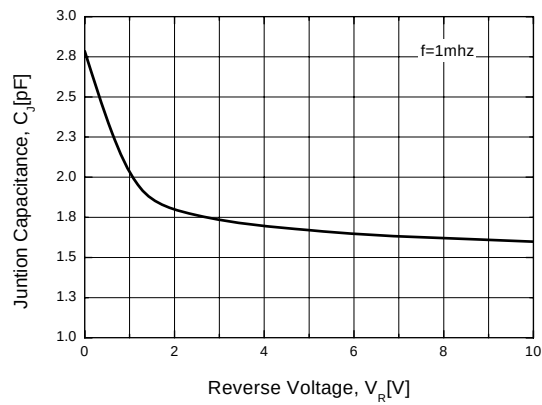
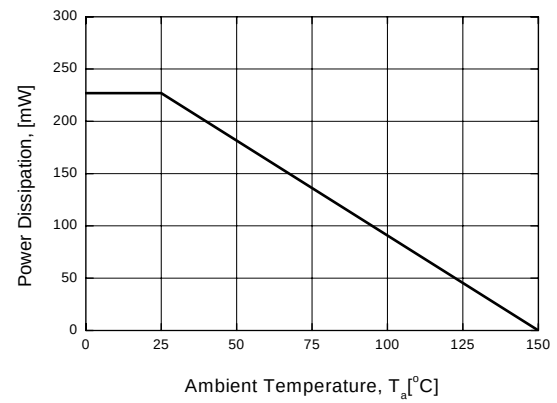
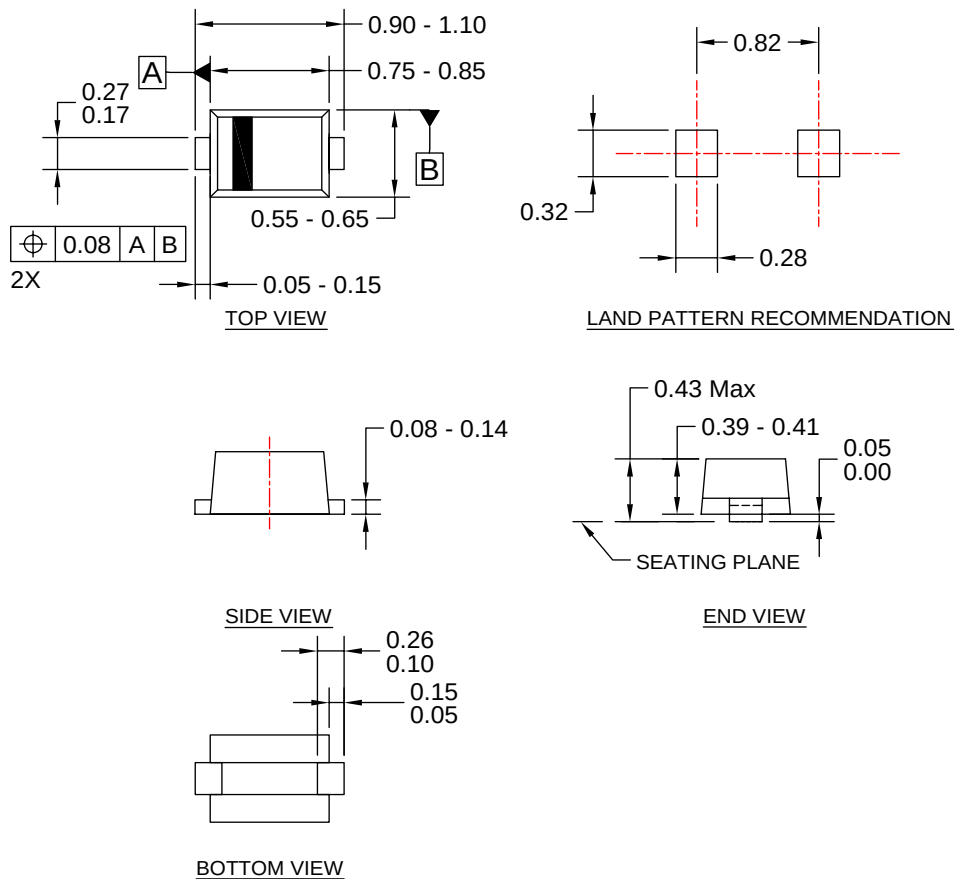


Figure 4. Power Derating



## 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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| Dual Cool™                                                                          | MegaBuck™                                                                           | Saving our world, 1mW/W/kW at a time™                                               | TinyLogic®                                                                            |
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