

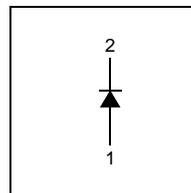
BAS40SL

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	40	V
$I_{F(AV)}$	Average Rectified Forward Current	100	mA
I_{FSM}	Forward Surge Current (8.3mS Single Half Sine-Wave)	600	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	$I_R = 10\mu\text{A}$	40		V
V_F	Forward Voltage	$I_F = 1\text{mA}$ $I_F = 40\text{mA}$		380 1000	mV mV
I_R	Reverse Leakage	$V_R = 30\text{V}$		0.2	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	$V_R = 0$, $f = 1.0\text{MHz}$		5.0	pF

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

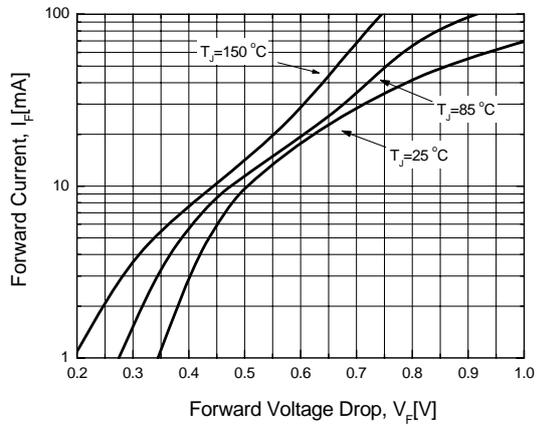


Figure 2. Reverse Leakage Current

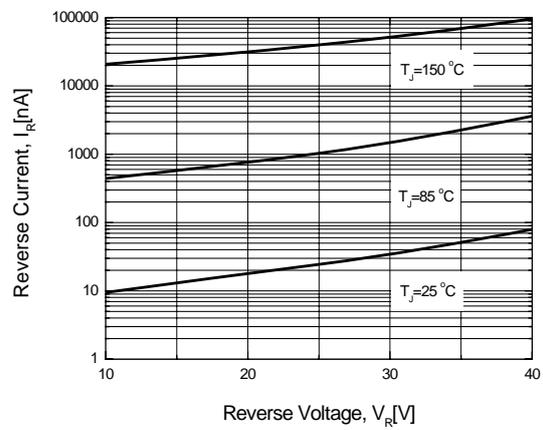


Figure 3. Junction Capacitance

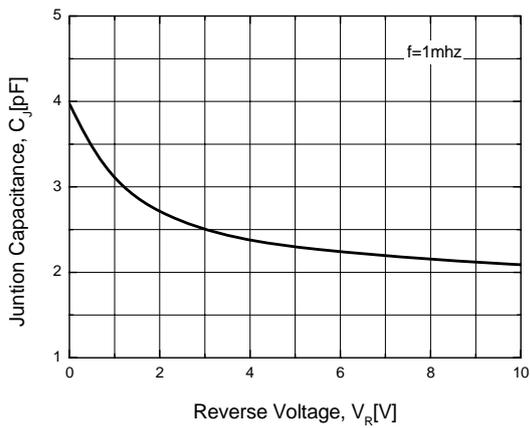
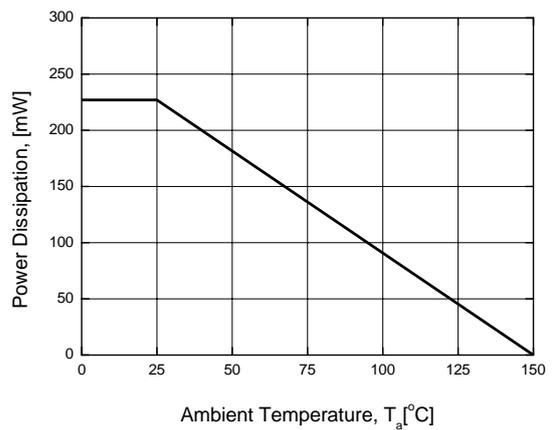
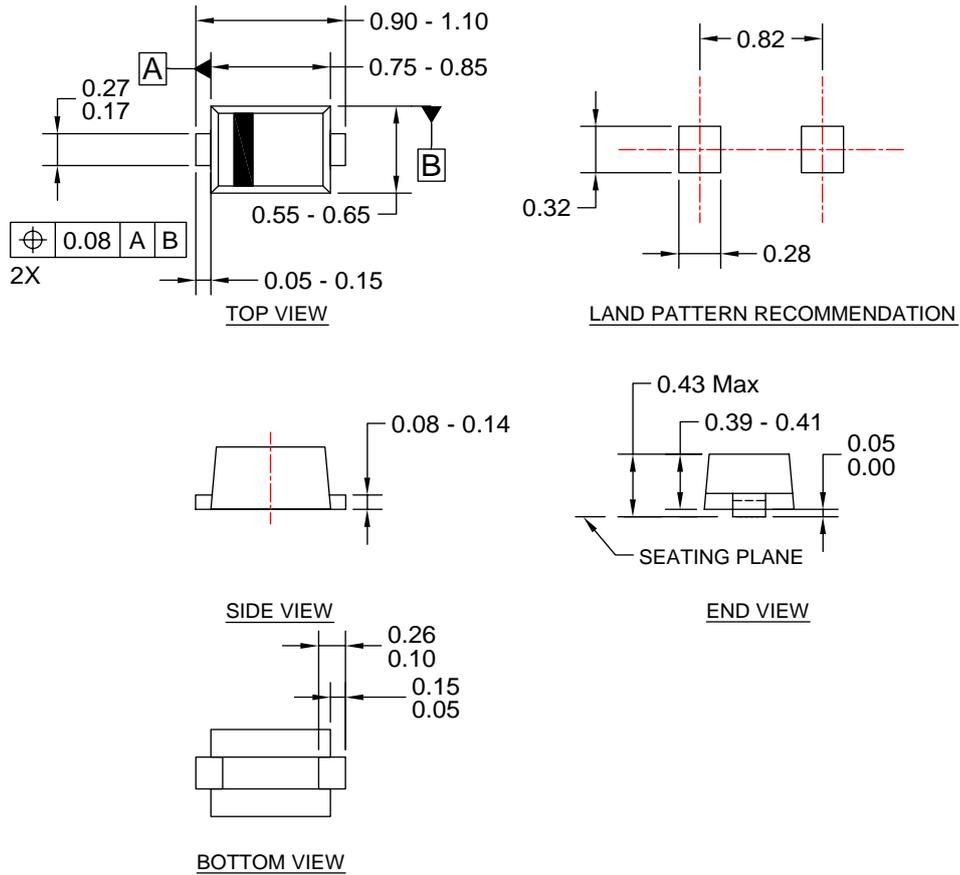


Figure 4. Power Derating



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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