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# BAS16SL

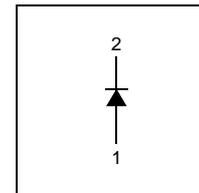
## Small Signal Diodes

### 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	$I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$		715 855 1.0 1.25	mV mV V V
$I_R$	Reverse Leakage	$V_R = 75\text{V}$ $V_R = 25\text{V}@150^\circ\text{C}$ $V_R = 75\text{V}@150^\circ\text{C}$		1.0 30 50	$\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
$t_{rr}$	Reverse Recovery Time	$I_F = I_R = 10\text{mA}$ , $i_{rr} = 0.1I_R$		8.0	nS
$C_j$	Junction Capacitance	$V_R = 0$ , $f = 1.0\text{MHz}$		2.0	pF

## Typical Performance Characteristics

Figure 1. Forward Current Characteristics

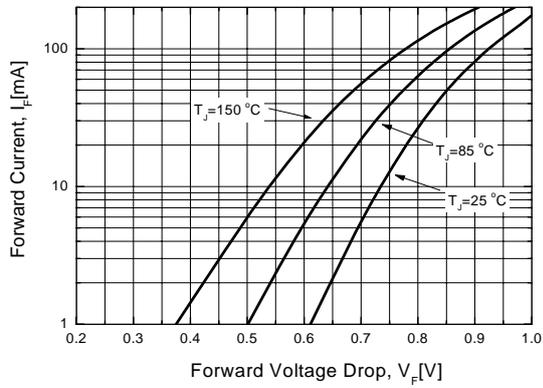


Figure 2. Reverse Leakage Current

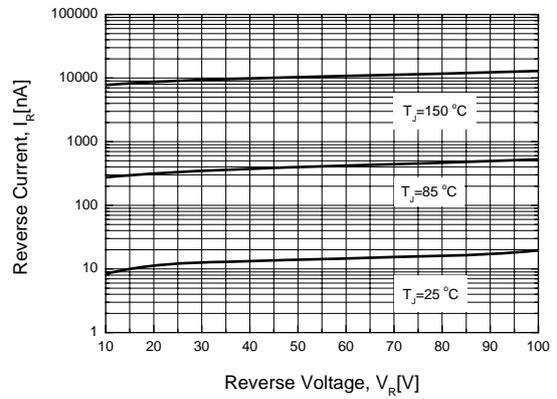


Figure 3. Junction Capacitance

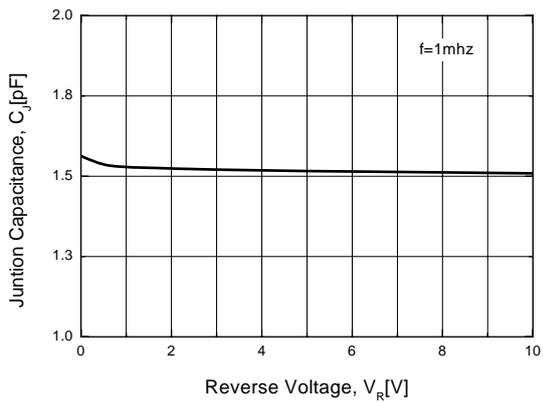
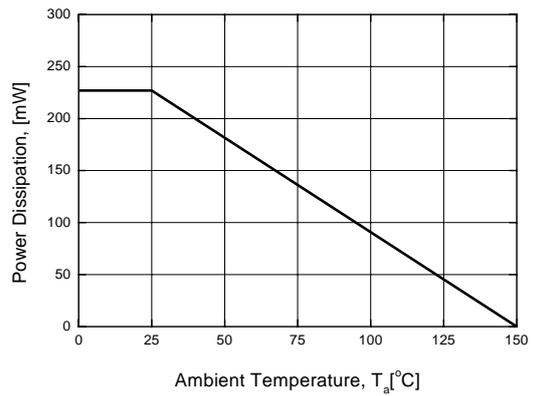
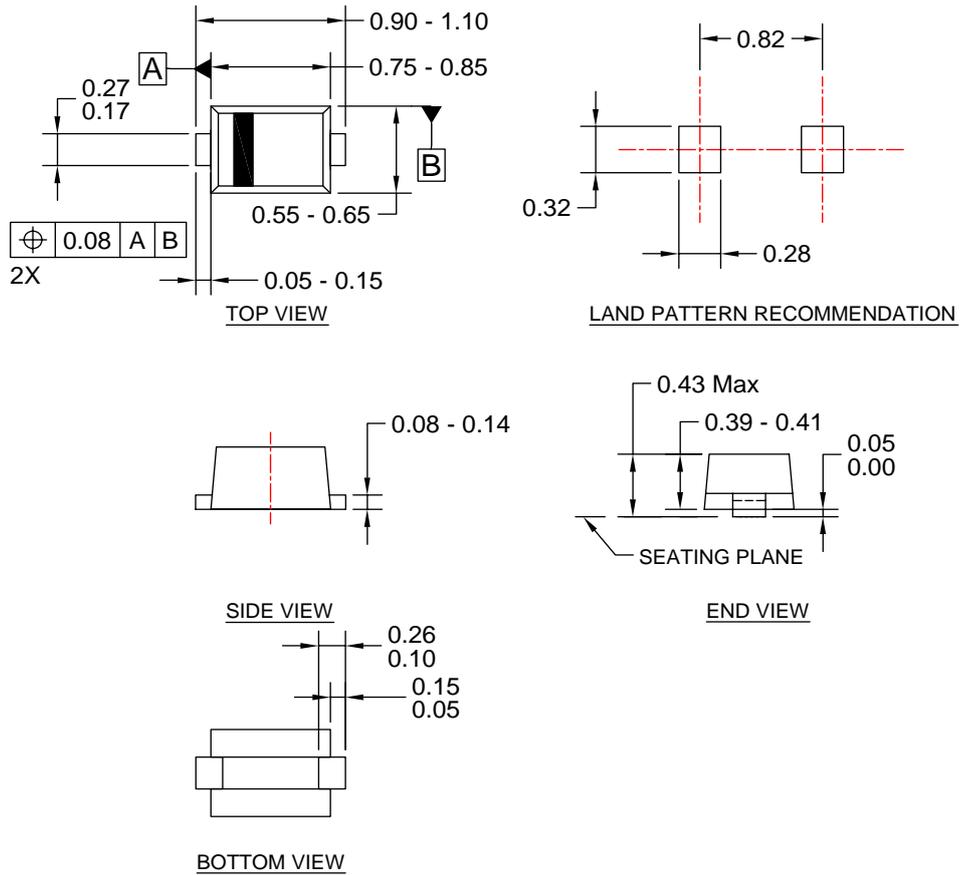


Figure 4. Power Derating



**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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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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