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October 2010

BAS16SL Small Signal Diodes

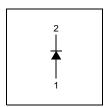
Features

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



SOD-923F Marking: AB

Connection Diagram



Absolute Maximum Ratings * $T_A = 25$ °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	°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
$R_{ heta JA}$	Thermal Resistance, Junction to Ambient *	520	°C/W

^{*} Minimum land pad.

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

Symbol	Parameter	Test Conditions	Min.	Max.	Unit
V _R	Breakdown Voltage	I _R = 100μA	85		V
V _F	Forward Voltage	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		715 855 1.0 1.25	mV mV V
I _R	Reverse Leakage	V _R = 75V V _R = 25V@150°C V _R = 75V@150°C		1.0 30 50	μΑ μΑ μΑ
trr	Reverse Recovery Time	$I_F = I_R = 10 \text{mA}, \text{ irr} = 0.1 I_R$		8.0	nS
C _j	Junction Capacitance	$V_R = 0, f = 1.0MHz$		2.0	pF

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

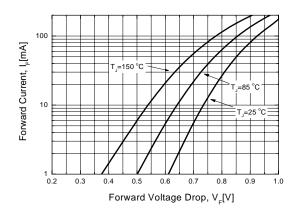


Figure 2. Reverse Leakage Current

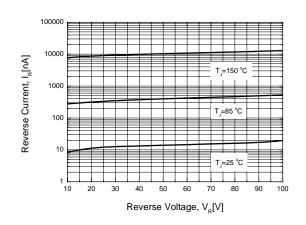


Figure 3. Junction Capacitance

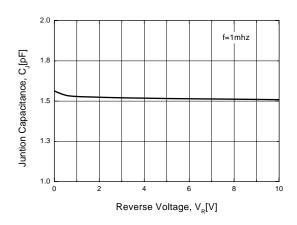
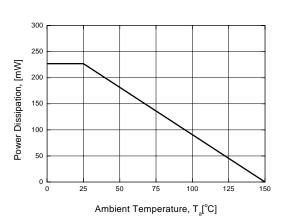
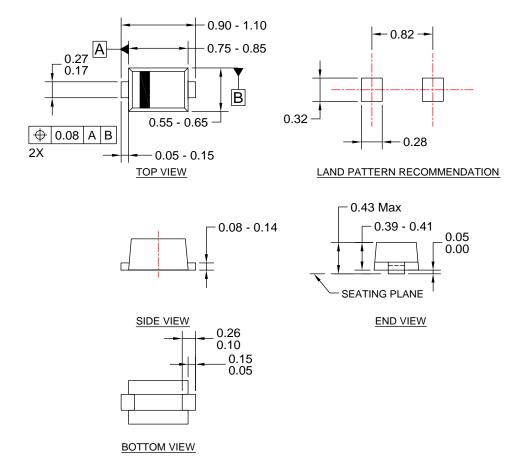


Figure 4. Power Derating



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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p<u>wer</u>

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Definition of Terms				
Datasheet Identification Product Status		Definition		
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