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October 2010

## BAS16SL Small Signal Diodes

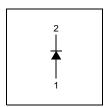
### **Features**

- 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 <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	85	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	150	mA
I <sub>FSM</sub>	Forward Surge Current (8.3mS Single Half Sine-Wave)	500	mA
T <sub>J</sub> , T <sub>STG</sub>	Operating Junction & Storage Temperature Range	-55 to +150	°C

<sup>\*</sup> 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 <sub>D</sub>	Power Dissipation	227	mW
$R_{ heta JA}$	Thermal Resistance, Junction to Ambient *	520	°C/W

<sup>\*</sup> Minimum land pad.

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

Symbol	Parameter	Test Conditions	Min.	Max.	Unit
V <sub>R</sub>	Breakdown Voltage	I <sub>R</sub> = 100μA	85		V
V <sub>F</sub>	Forward Voltage	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		715 855 1.0 1.25	mV mV V
I <sub>R</sub>	Reverse Leakage	V <sub>R</sub> = 75V V <sub>R</sub> = 25V@150°C V <sub>R</sub> = 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 <sub>j</sub>	Junction Capacitance	$V_R = 0, f = 1.0MHz$		2.0	pF

## **Typical Performance Characteristics**

**Figure 1. Forward Current Characteristics** 

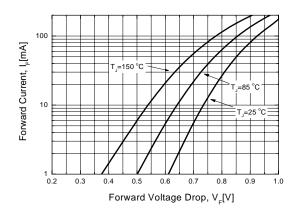


Figure 2. Reverse Leakage Current

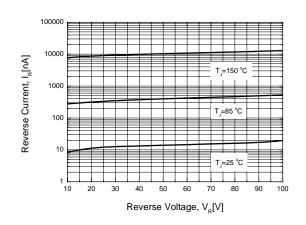


Figure 3. Junction Capacitance

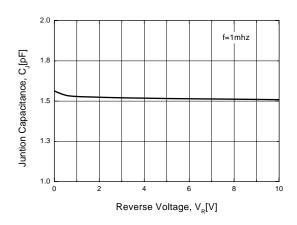
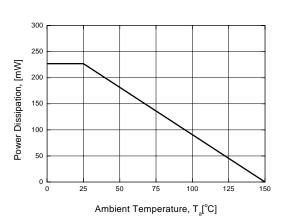
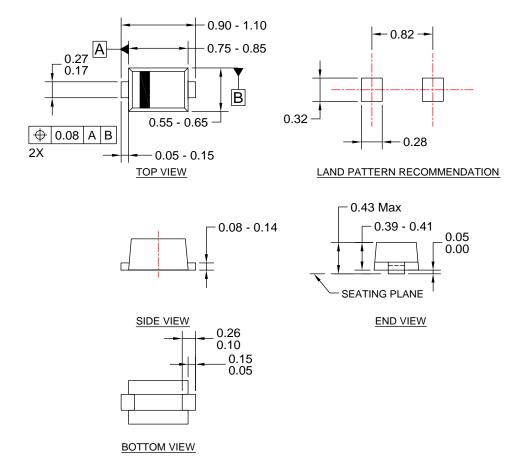


Figure 4. Power Derating



## **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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