

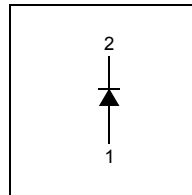
# BAS40SL

## 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 0.6 mm

### 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	$^\circ\text{C}/\text{W}$

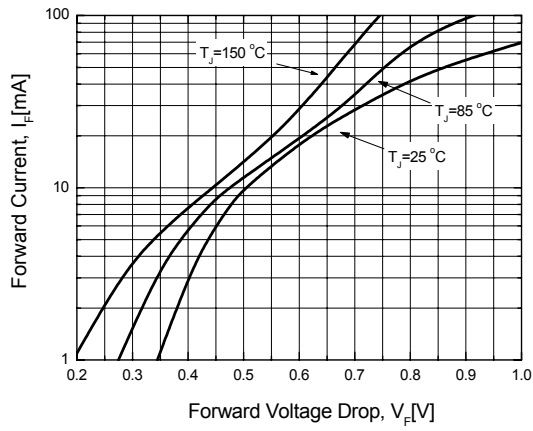
\* Minimum land pad.

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

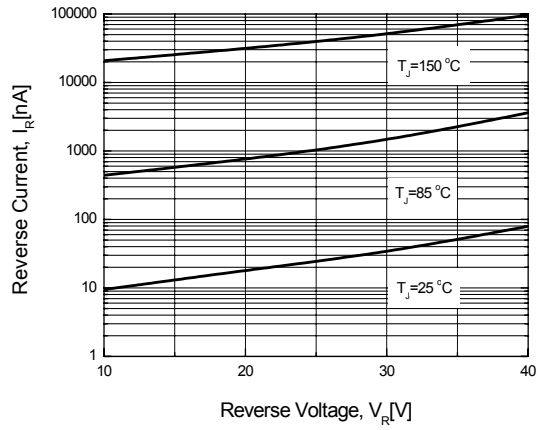
Symbol	Parameter	Test Conditions	Min.	Max.	Unit
$V_R$	Breakdown Voltage	$I_R = 10\mu\text{A}$	40		V
$V_F$	Forward Voltage	$I_F = 1\text{mA}$ $I_F = 40\text{mA}$		380 1000	mV mV
$I_R$	Reverse Leakage	$V_R = 30\text{V}$		0.2	$\mu\text{A}$
$t_{rr}$	Reverse Recovery Time	$I_F = I_R = 10\text{mA}$ , $i_{rr} = 0.1I_R$		8.0	nS
$C_j$	Junction Capacitance	$V_R = 0$ , $f = 1.0\text{MHz}$		5.0	pF

## Typical Performance Characteristics

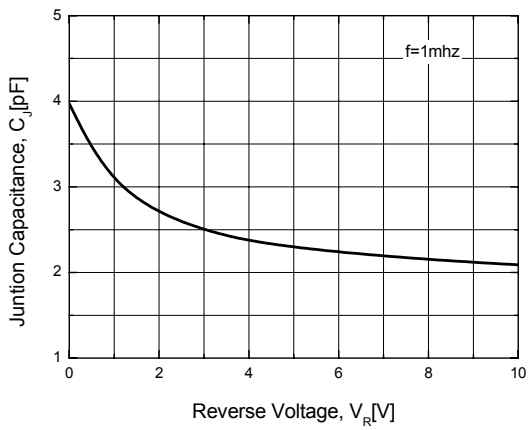
**Figure 1. Forward Current Characteristics**



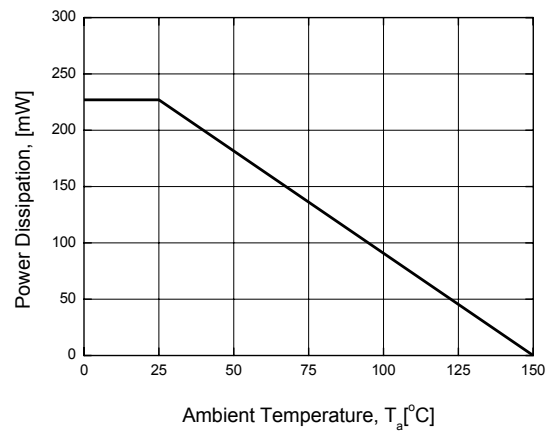
**Figure 2. Reverse Leakage Current**

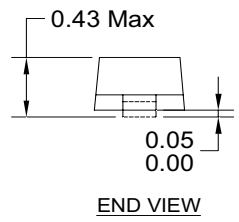
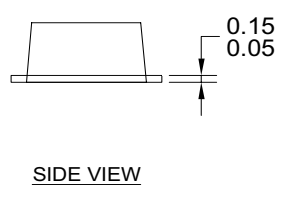
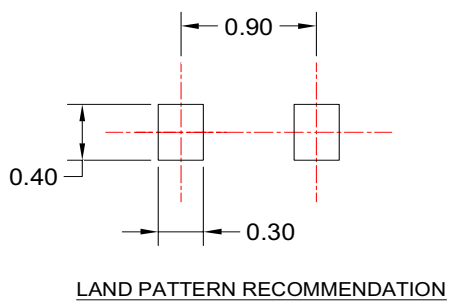
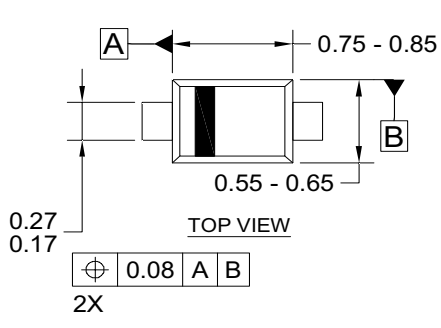


**Figure 3. Junction Capacitance**



**Figure 4. Power Derating**





- NOTES:
- A) THIS PACKAGE DOES NOT COMPLY TO ANY CURRENT PACKAGING STANDARD.
  - B) ALL DIMENSIONS ARE IN MILLIMETERS.
  - C) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
  - D) DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994
  - E) DRAWING FILE NAME : SOD923F02REV1



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