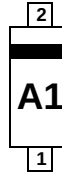


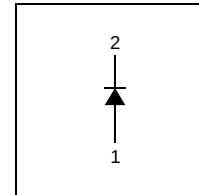
BAS16HT1G



SOD-323



Connection Diagram



Small Signal Diode

Absolute Maximum Ratings * $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	85	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second	600	mA
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

* These ratings are limiting values above which the serviceability of the diode may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	600	$^\circ\text{C/W}$

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

Symbol	Parameter	Test Conditions	Min.	Max.	Units
V_R	Breakdown Voltage	$I_R = 5.0\mu\text{A}$	85		V
V_F	Forward Voltage	$I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$		715 855 1.0 1.25	mV mV V V
I_R	Reverse Leakage	$V_R = 75\text{V}$ $V_R = 25\text{V}, T_A = 150^\circ\text{C}$ $V_R = 75\text{V}, T_A = 150^\circ\text{C}$		1.0 30 50	μA μA μA
C_T	Total Capacitance	$V_R = 0, f = 1.0\text{MHz}$		2.0	pF
t_{rr}	Reverse Recovery Time	$I_F = I_R = 10\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$		6.0	ns

Typical Characteristics

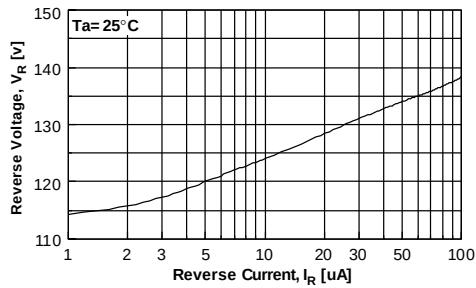


Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100 μ A

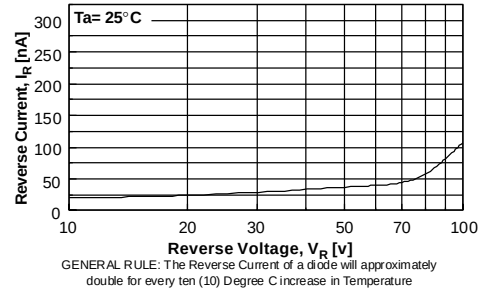


Figure 2. Reverse Current vs Reverse Voltage
IR - 10 to 100V

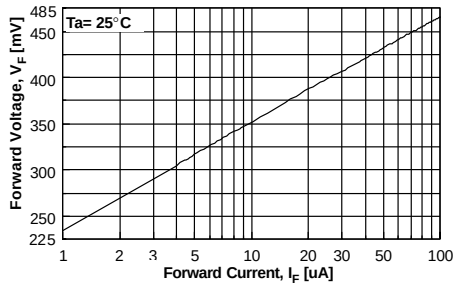


Figure 3. Forward Voltage vs Forward Current
VF - 1.0 to 100 μ A

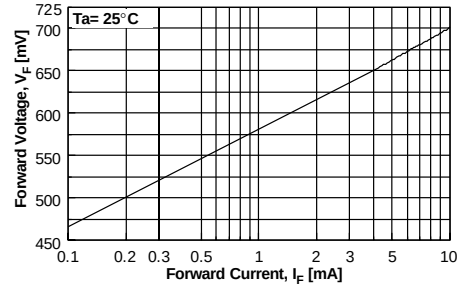


Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 10mA

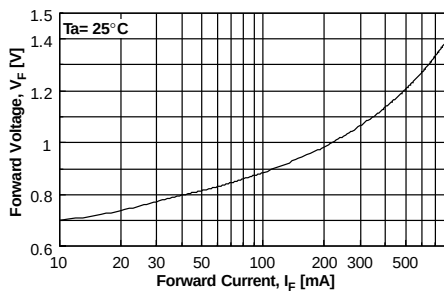


Figure 5. Forward Voltage vs Forward Current
VF - 10 - 800mA

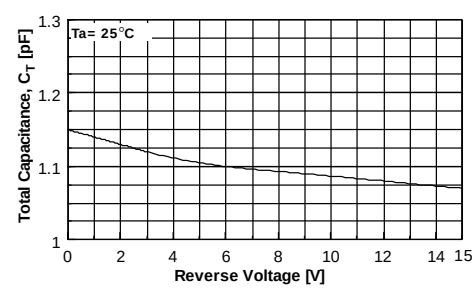


Figure 6. Total Capacitance

Typical Characteristics (Continued)

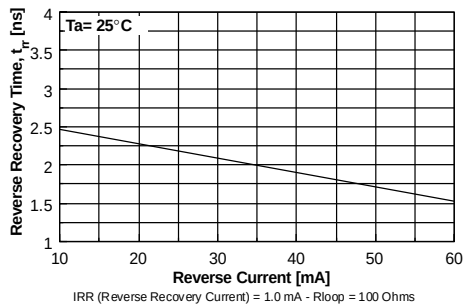


Figure 7. Reverse Recovery Time vs Reverse Current
TRR - IR 10mA vs 60mA

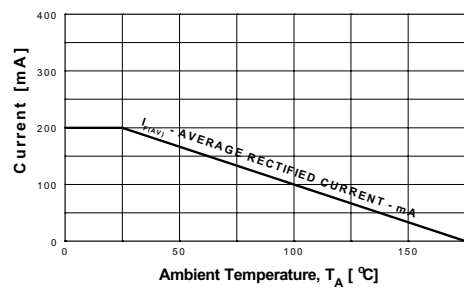


Figure 8. Average Rectified Current ($I_{F(AV)}$) vs
Ambient Temperature (T_A)

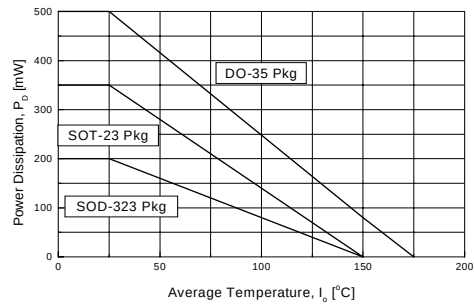
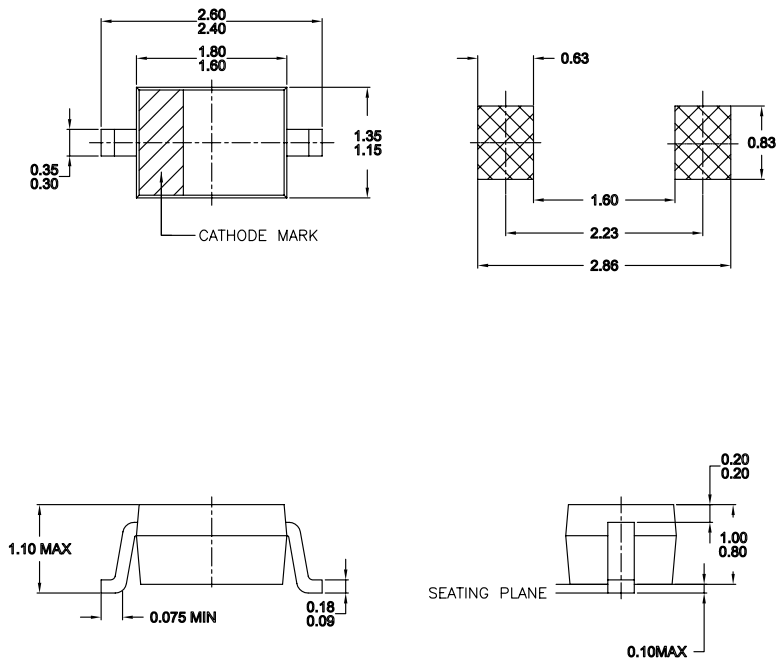


Figure 9. Power Derating Curve

Package Dimension

SOD-323



NOTES: UNLESS OTHERWISE SPECIFIED
 A) THIS PACKAGE CONFORMS TO EIAJ SC76
 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

Dimensions in Millimeters

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