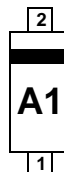


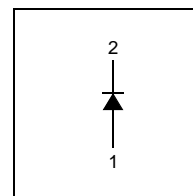
## BAS16HT1G



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.

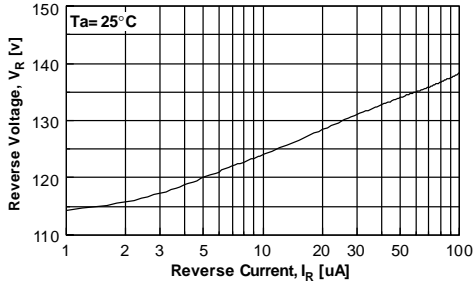
### Thermal Characteristics

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

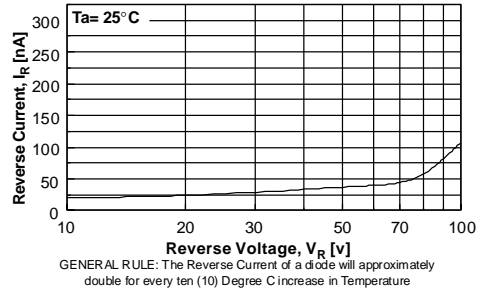
### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

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	$\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
$C_T$	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

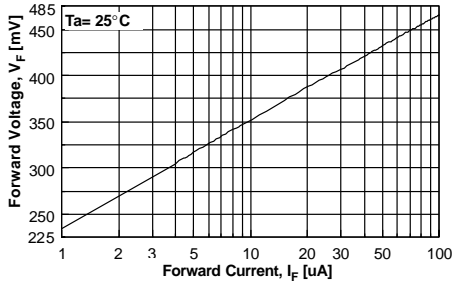
# Typical Characteristics



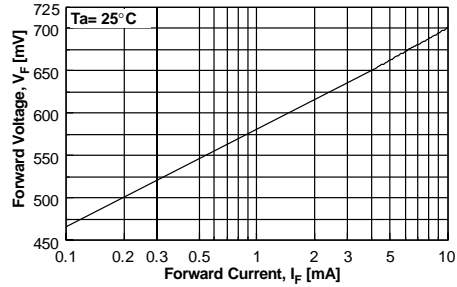
**Figure 1. Reverse Voltage vs Reverse Current**  
BV - 1.0 to 100 $\mu$ A



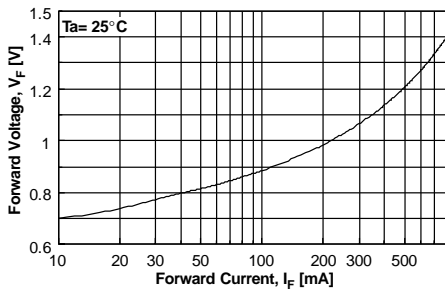
**Figure 2. Reverse Current vs Reverse Voltage**  
IR - 10 to 100V



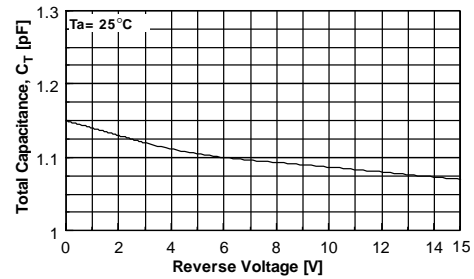
**Figure 3. Forward Voltage vs Forward Current**  
VF - 1.0 to 100 $\mu$ A



**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)

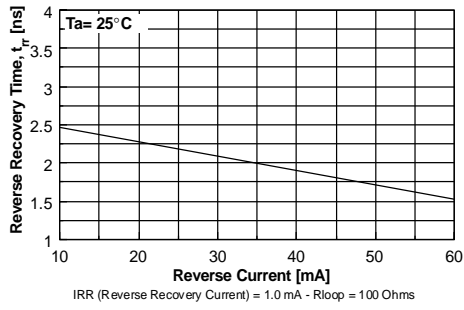


Figure 7. Reverse Recovery Time vs Reverse Current  
TRR - IR 10mA vs 60mA

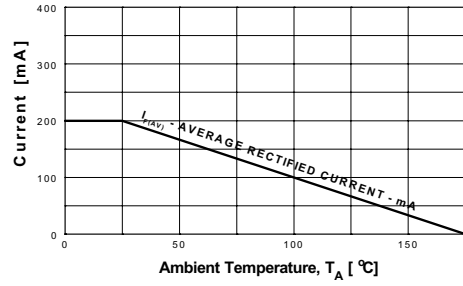


Figure 8. Average Rectified Current ( $I_{F(AV)}$ ) vs Ambient Temperature ( $T_A$ )

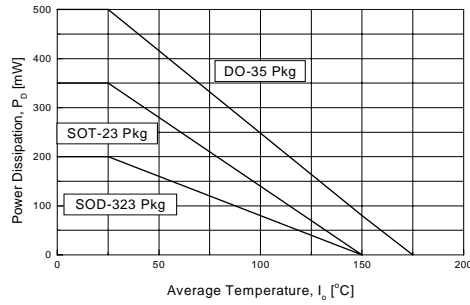
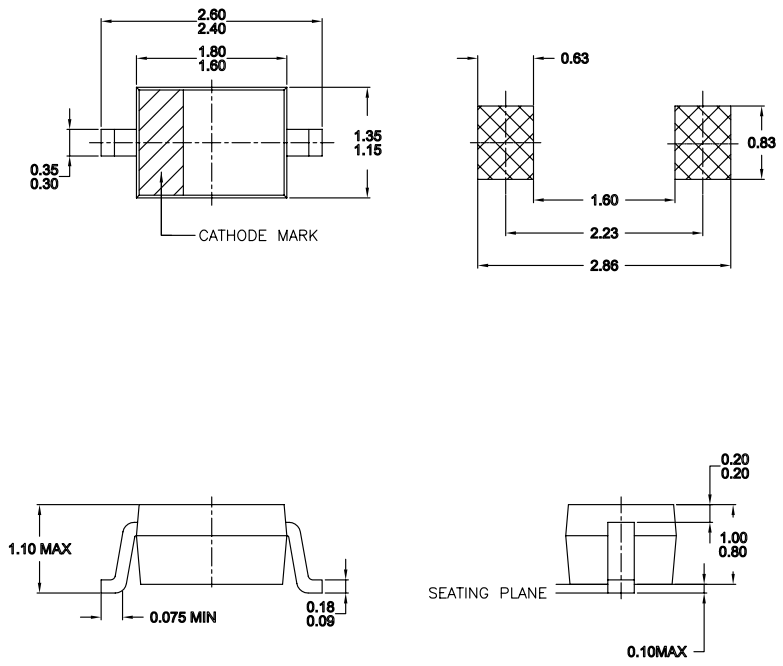


Figure 9. Power Derating Curve

# Package Dimension

BAS16HT1G

## 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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