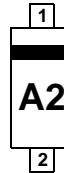


# BAT54HT1G

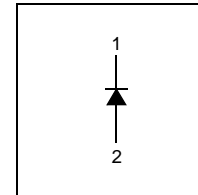
## Small Signal Diode



SOD-323



Connection Diagram



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

| Symbol      | Parameter   | Value       | Units            |
|-------------|---|-------------|------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage                                    | 30          | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current                                     | 200         | mA               |
| $I_{FSM}$   | Non-repetitive Peak Forward Surge Current<br>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.

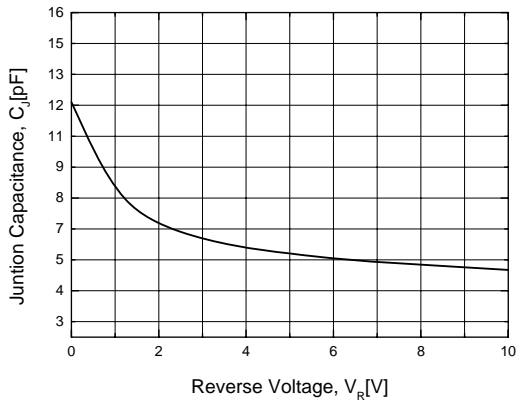
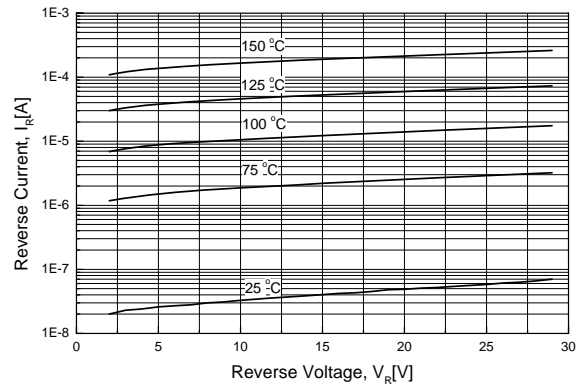
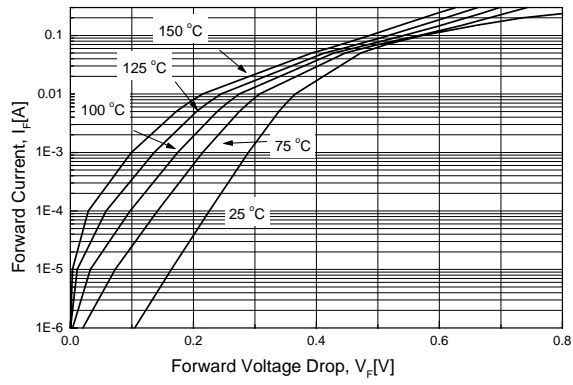
### Thermal Characteristics

| 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

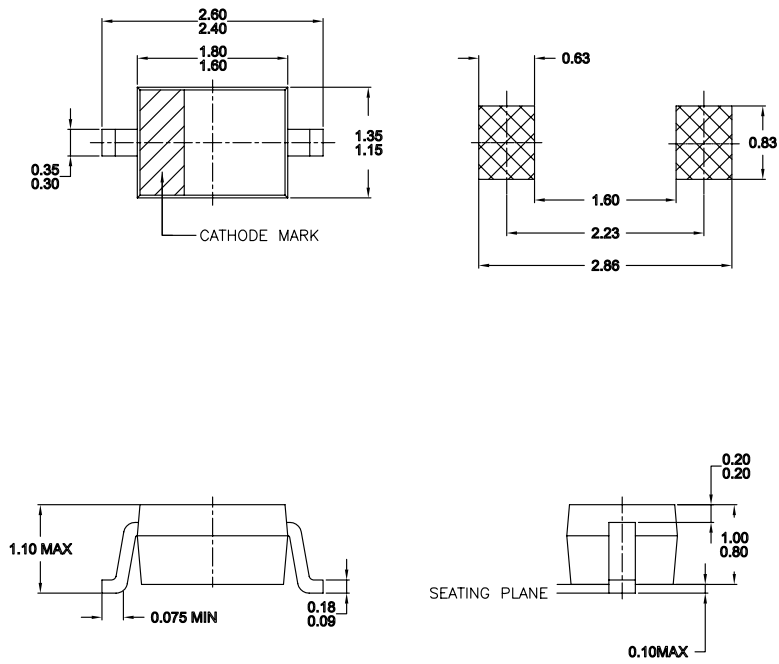
| Symbol   | Parameter             | Test Conditions  | Min. | Max.                            | Units                     |
|----------|-----------------------|--|------|---------------------------------|---------------------------|
| $V_R$    | Breakdown Voltage     | $I_R = 10\mu\text{A}$  | 30   |                                 | V                         |
| $V_F$    | Forward Voltage       | $I_F = 0.1\text{mA}$<br>$I_F = 1.0\text{mA}$<br>$I_F = 10\text{mA}$<br>$I_F = 30\text{mA}$<br>$I_F = 100\text{mA}$ |      | 240<br>320<br>400<br>500<br>0.8 | mV<br>mV<br>mV<br>mV<br>V |
| $I_R$    | Reverse Leakage       | $V_R = 25\text{V}$   |      | 2.0                             | $\mu\text{A}$             |
| $C_T$    | Total Capacitance     | $V_R = 1\text{V}, f = 1.0\text{MHz}$   |      | 10                              | pF                        |
| $t_{rr}$ | Reverse Recovery Time | $I_F = I_R = 10\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$  |      | 5.0                             | ns                        |

### Typical Performance Characteristics



Physical 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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