

BAT54HT1G

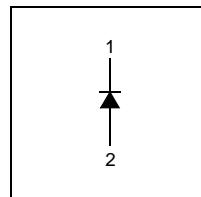
Schottky Barrier Diodes



SOD-323



Connection Diagram



Ordering Information

Part Number	Marking	Package	Packing Method
BAT54HT1G	A2	SOD-323 2L	Tape and Reel

Absolute Maximum Ratings⁽¹⁾

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings. Values are at $T_A = 25^\circ\text{C}$ 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 Pulse Width = 1.0 second	600	mA
T_{STG}	Storage Temperature Range	-65 to +150	°C
T_J	Operating Junction Temperature	-55 to +150	°C

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

Note:

1) These ratings are based on a maximum junction temperature of 150°C .

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	°C/W

Electrical Characteristics

Values are at $T_A = 25^\circ\text{C}$ 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	$I_F = 0.1 \text{ mA}$		240	mV
		$I_F = 1.0 \text{ mA}$		320	mV
		$I_F = 10 \text{ mA}$		400	mV
		$I_F = 30 \text{ mA}$		500	mV
		$I_F = 100 \text{ mA}$		0.8	V
I_R	Reverse Leakage	$V_R = 25 \text{ V}$		2.0	μA
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

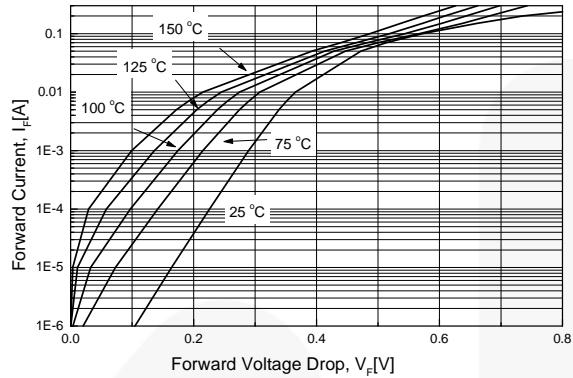


Figure 1. Forward Current Characteristics

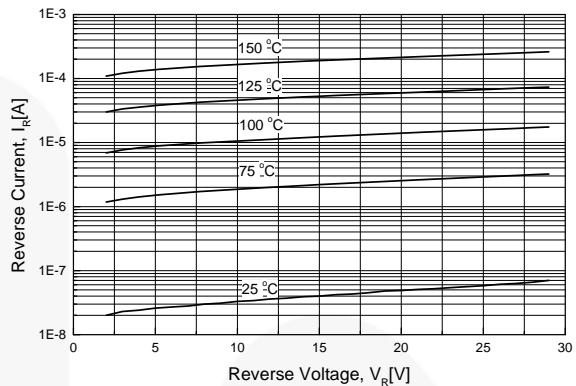


Figure 2. Reverse Leakage Current

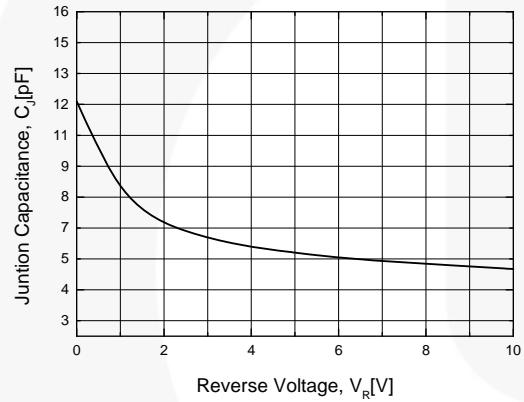


Figure 3. Junction Capacitance

Physical Dimensions

SOD-323 2L

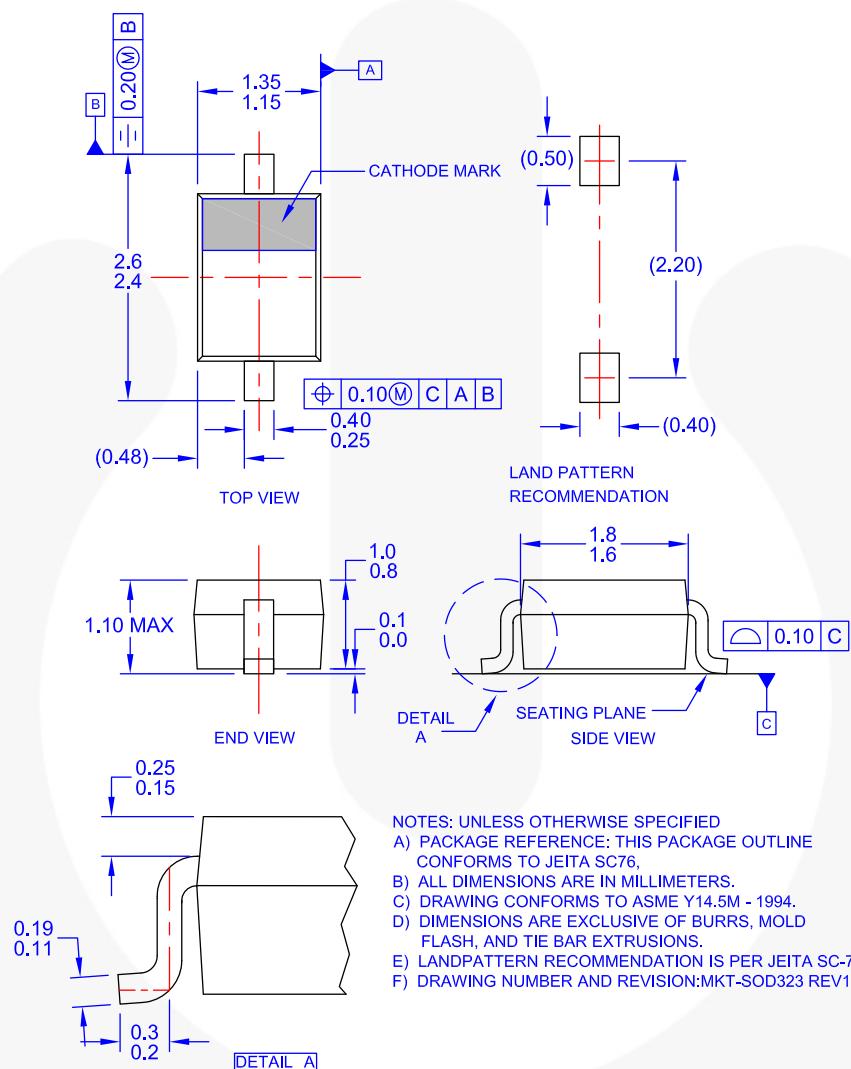


Figure 4. 2-LEAD, SOD323, JEITA SC76 (FORMED LEADS) (ACTIVE)

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