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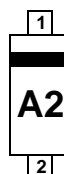
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# BAT54HT1G

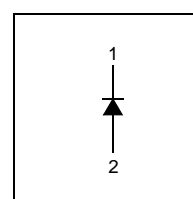
## Schottky Barrier Diodes



SOD-323



Connection Diagram



### Ordering Information

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

### Absolute Maximum Ratings<sup>(1)</sup>

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 only. 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	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

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

#### Note:

1) These ratings are based on a maximum junction temperature of  $150^\circ\text{C}$ .

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

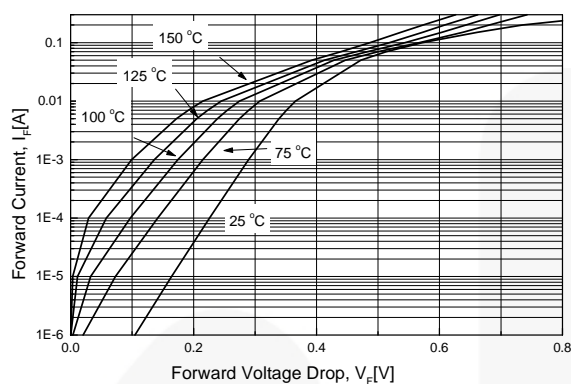


Figure 1. Forward Current Characteristics

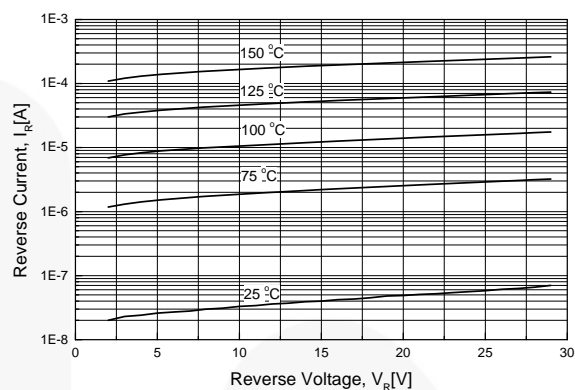


Figure 2. Reverse Leakage Current

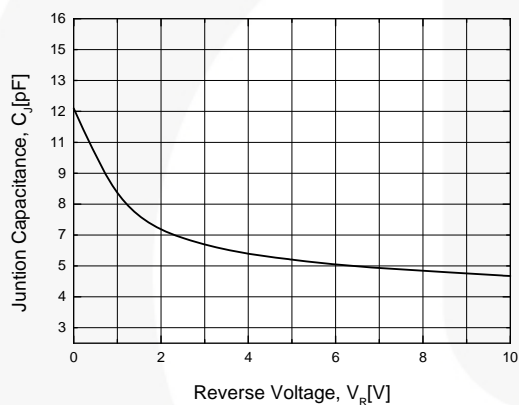


Figure 3. Junction Capacitance

## Physical Dimensions

## SOD-323 2L

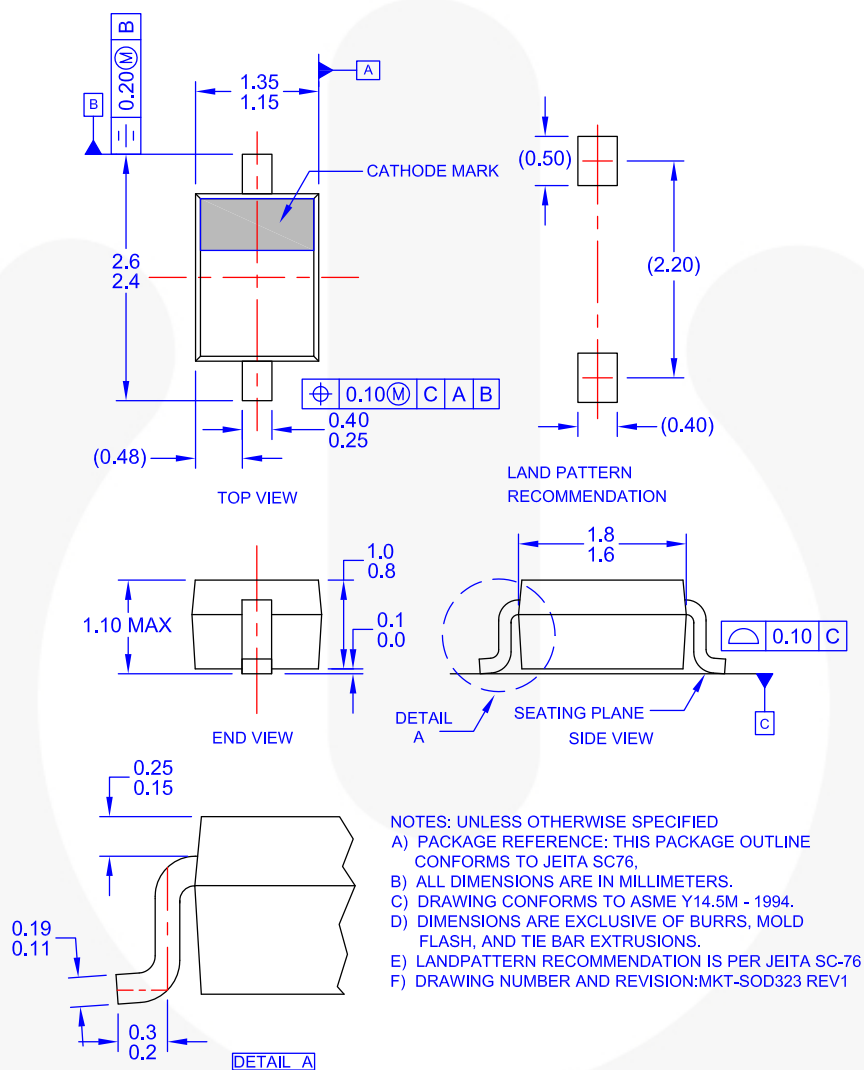


Figure 4. 2-LEAD, SOD323, JEITA SC76 (FORMED LEADS) (ACTIVE)

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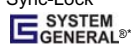



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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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