



## DESCRIPTION

These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction loss. Miniature surface mount package is excellent for hand held and portable applications where space is limited.

The BAT54H is available in SOD-323 Package

## ORDERING INFORMATION

Package Type	Part Number
SOD-323	BAT54H
Note	3,000PCS/Reel
AiT provides all RoHS Compliant Products	

## FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage — 0.35 Volts (Typ)  
@  $I_F = 10 \text{ mAdc}$
- Available in SOD-323 Package

## PIN DESCRIPTION





## ABSOLUTE MAXIMUM RATINGS

T<sub>A</sub> = 25°C

V <sub>R</sub> , DC reverse voltage	30V
P <sub>D</sub> , Total Device Dissipation FR-5 Board, T <sub>A</sub> = 25°C Derate above 25°C	200mW 1.57mW/°C
I <sub>F</sub> , DC forward current	200mA
T <sub>J</sub> , Junction temperature	125°C
T <sub>STG</sub> , Storage temperature	-55°C ~+150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

## ELECTRICAL CHARACTERISTICS

T<sub>A</sub> = 25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =10μA	30	-	-	V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =0.1mA	-	0.22	0.24	V
		I <sub>F</sub> =1mA	-	0.29	0.32	
		I <sub>F</sub> =10mA	-	0.35	0.4	
		I <sub>F</sub> =30mA	-	0.41	0.5	
		I <sub>F</sub> =100mA	-	0.52	1	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =25V	-	0.50	2	μA
Repetitive Peak Forward Current	I <sub>FRM</sub>		-	-	300	mA
Non-Repetitive Peak Forward Current (t < 1.0s)	I <sub>FSM</sub>		-	-	600	mA
Total Capacitance	C <sub>T</sub>	V <sub>R</sub> =1.0V, f=1.0MHz	-	-	10	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA <sub>dc</sub> , I <sub>R(REC)</sub> =1.0mA <sub>dc</sub>	-	-	5	ns



## TYPICAL CHARACTERISTICS

Figure 1. Forward Characteristics

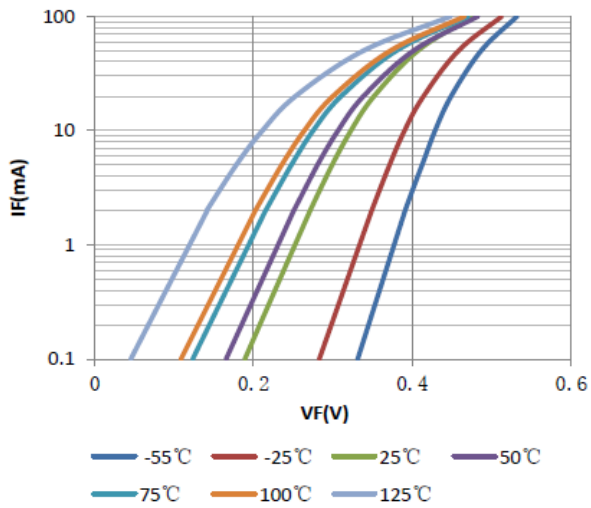


Figure 2. Reverse Characteristics

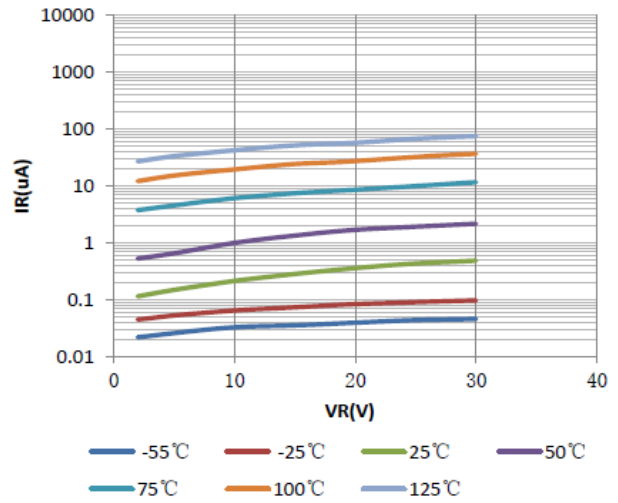
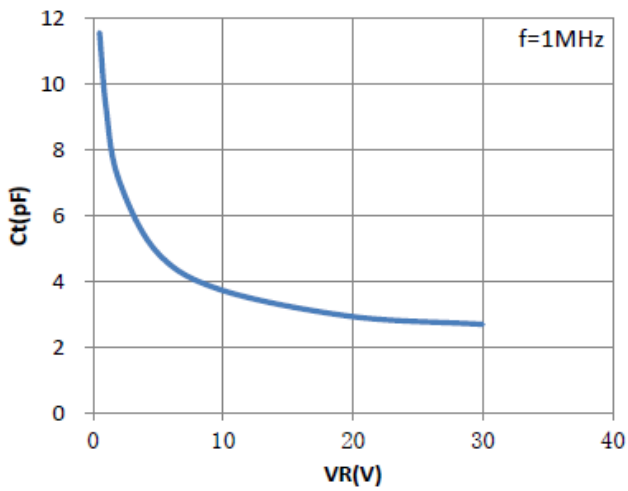


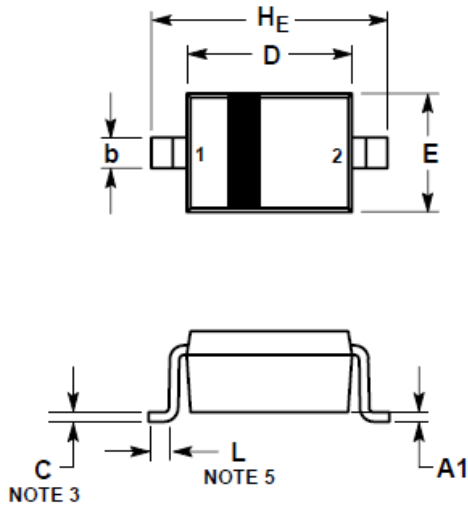
Figure 3. Capacitance



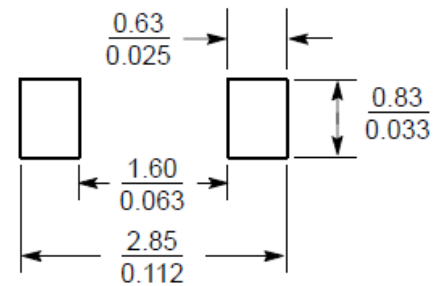


**PACKAGE INFORMATION**

Dimension in SOD-323 (Unit: mm)



**SOLDERING FOOTPRINT**



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.80	1.00	0.031	0.040
A1	0.00	0.10	0.000	0.004
A3	0.150 REF		0.006 REF	
b	0.25	0.4	0.010	0.016
C	0.089	0.177	0.003	0.007
D	1.60	1.80	0.062	0.070
E	1.15	1.35	0.045	0.053
L	0.080	-	0.003	-
HE	2.30	2.70	0.090	0.105



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