

SCHOTTKY BARRIER DIODE

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.

●FEATURES

- 1)Extremely Fast Switching Speed
- 2) Low Forward Voltage — 0.35 Volts (Typ) @ $I_F = 10 \text{ mAdc}$
- 3)We declare that the material of product compliant with RoHS requirements and Halogen Free.
- 4)S- Prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

●DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
BAT54H	JV	3000/Tape&Reel
BAT54H	JV	10000/Tape&Reel

●MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	30	V
Total Device Dissipation FR-5 Board, $T_A = 25^\circ\text{C}$	P_D	200	mW
Derate above 25°C		1.57	mW/°C
DC forward current	I_F	200	mA
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

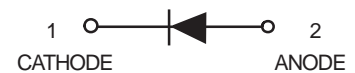
●ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	30	—	—	V	$I_R = 10 \mu\text{A}$
Forward voltage	V_F	—	0.22	0.24	V	$I_F = 0.1 \text{ mA}$
Forward voltage	V_F	—	0.29	0.32	V	$I_F = 1 \text{ mA}$
Forward voltage	V_F	—	0.35	0.4	V	$I_F = 10 \text{ mA}$
Forward voltage	V_F	—	0.41	0.5	V	$I_F = 30 \text{ mA}$
Forward voltage	V_F	—	0.52	1	V	$I_F = 100 \text{ mA}$
Reverse current	I_R	—	0.5	2	μA	$V_R = 25 \text{ V}$
Repetitive Peak Forward Current	I_{FRM}	—	—	300	mA	
Non-Repetitive Peak Forward Current (t < 1.0s)	I_{FSM}	—	—	600	mA	
Total Capacitance	C_T	—	—	10	pF	$V_R = 1.0 \text{ V}, f = 1.0 \text{ MHz}$
Reverse Recovery Time	t_{rr}	—	—	5	ns	$I_F = I_R = 10 \text{ mAdc}, I_{R(REC)} = 1.0 \text{ mAdc}$

Dimensions SOD-323



Pin Configuration



ELECTRICAL CHARACTERISTIC CURVES

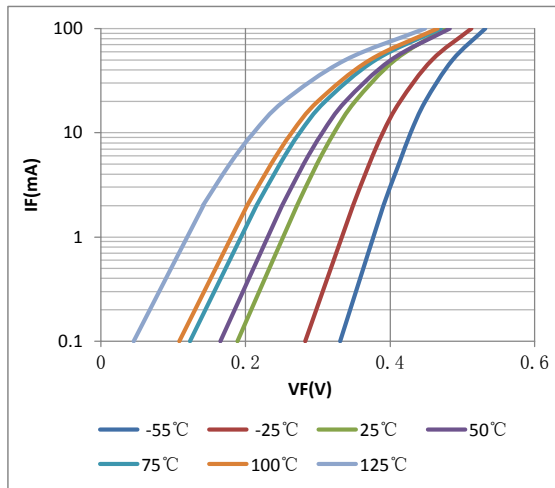


FIG. 1 Forward Characteristics

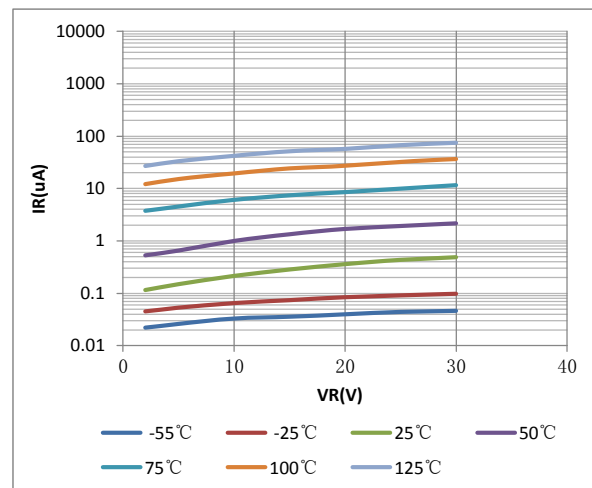


FIG. 2 Reverse Characteristics

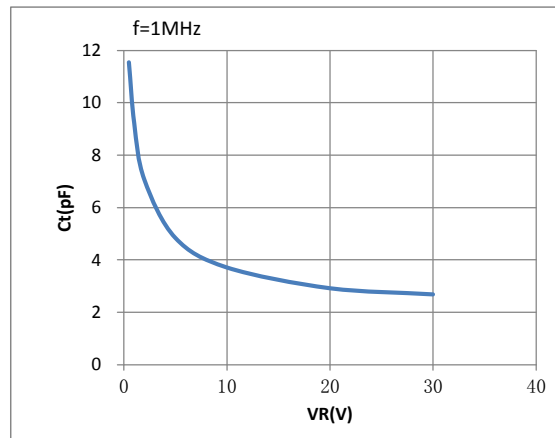
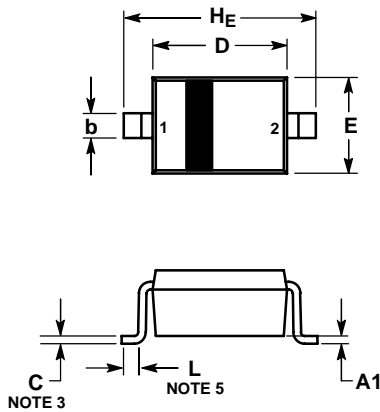


FIG. 3 Capacitance

SOD-323



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
5. DIMENSION L IS MEASURED FROM END OF RADIUS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.4	0.010	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
HE	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT*

