

SCHOTTKY BARRIER DIODE

LBAS170HT1G

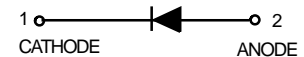
Features

- Schottky diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- We declare that the material of product compliance with RoHS requirements.



Ordering Information

Device	Marking	Shipping
LBAS170HT1G	73	3000 Tape & Reel
LBAS170HT3G	73	10000 Tape & Reel



Maximum Ratings and Thermal Characteristics (T_c = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	70	V
Forward Continuous Current at T _{amb} = 25°C	I _F	70	mA
Surge Forward Current at t _p < 1s, T _{amb} = 25°C	I _{FSM}	600	mA
Power Dissipation ⁽¹⁾ at T _{amb} = 25°C	P _{tot}	200	mW
Thermal Resistance Junction to Ambient Air ⁽¹⁾	R _{θJA}	650	°C/W
Junction Temperature	T _j	150	°C
Operating Temperature Range	T _{op}	-55 to +125	°C
Storage Temperature Range	T _s	-55 to +150	°C

Note: (1) Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics (T_c = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R = 10μA (pulsed)	70	—	—	V
Leakage Current	I _R	V _R = 50V V _R = 70V	— —	— —	0.1 10	μA
Forward Voltage	V _F	I _F = 1mA I _F = 10mA I _F = 15mA ⁽¹⁾	— — —	375 705 880	410 750 1000	mV
Capacitance	C _{tot}	V _R = 0V f = 1MHz	—	1.5	2	pF
Charge Carrier Lifetime	τ	I _F = 25mA	—	100	—	ps
Differential Forward Resistance	R _F	I _E = 5mA, f = 10KHz	—	34	—	Ω

Note: (1) Pulse test; t_p ≤ 300μs

Electrical characteristic curves($T_A = 25^\circ\text{C}$)

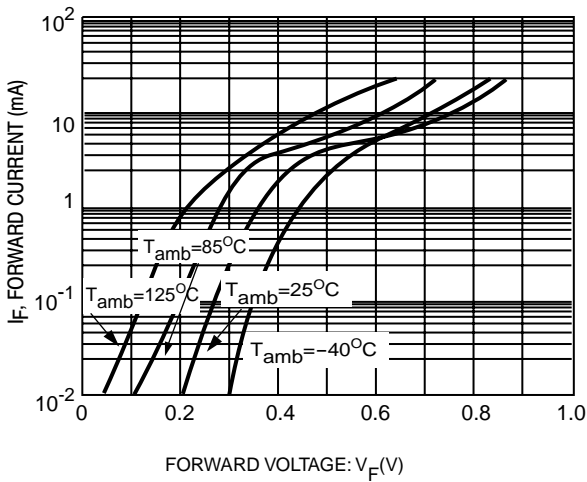


Fig.1 Forward current as a function of forward voltage; typical values.

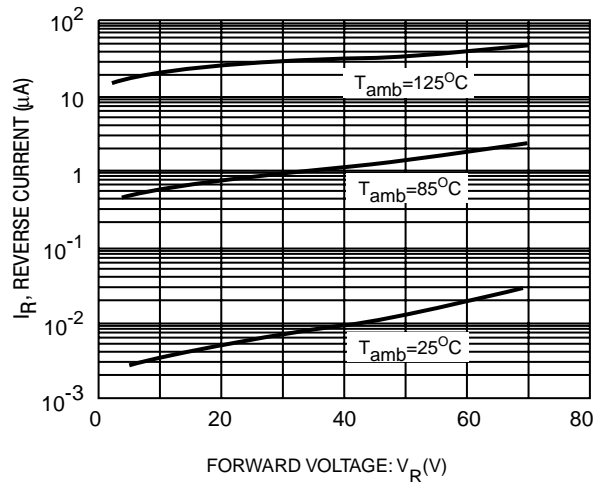


Fig.2 Reverse current as a function of reverse voltage; typical values.

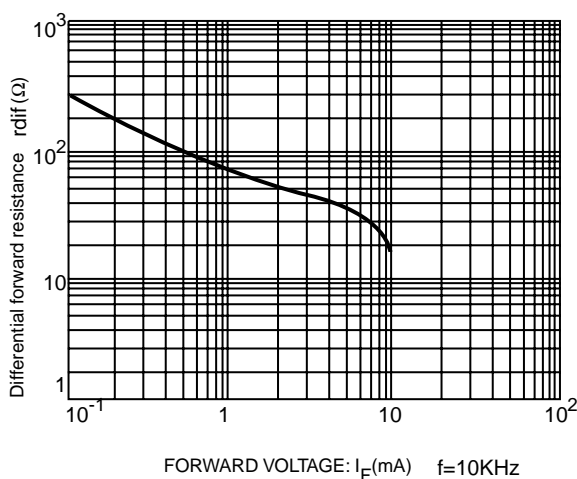


Fig.3 Differential forward resistance as a function of forward current; typical values.

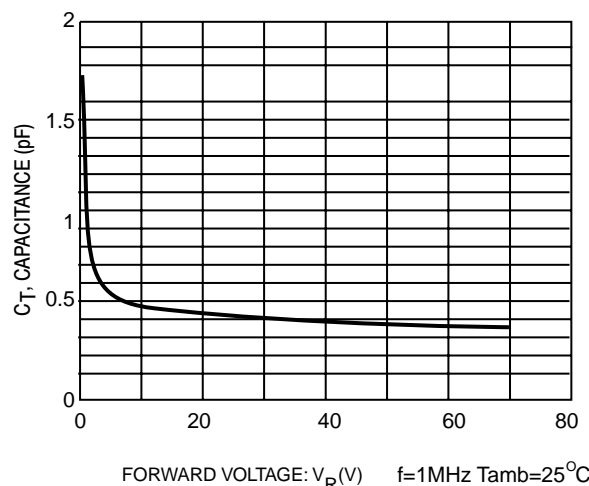
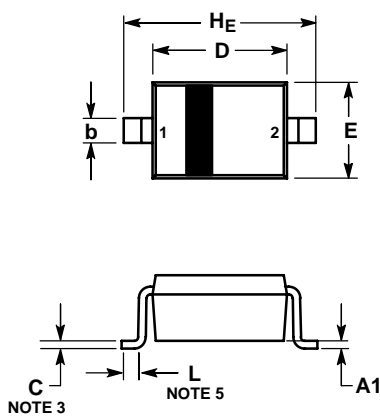


Fig.4 Diode capacitance as a function of reverse voltage; typical values.

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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		
H_E	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT*
