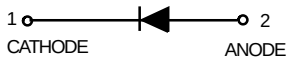
SCHOTTKY BARRIER DIODE

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.

SOD–323



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)	$R_{\theta JA}$	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; $t_p \leq 300\mu s$

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Electrical characteristic curves(T_A = 25°C)

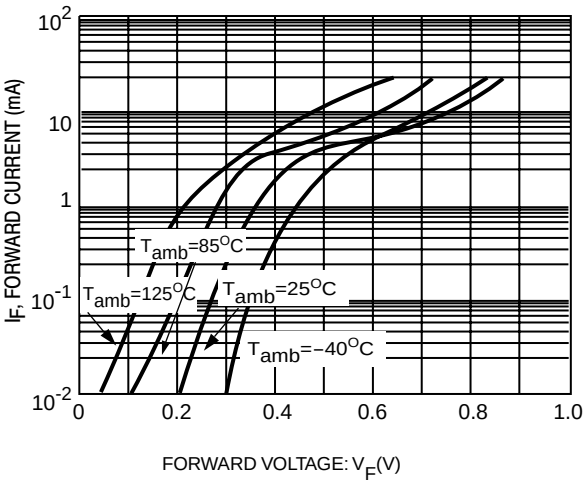

Fig.1 Forward current as a function of forward voltage; typical values.

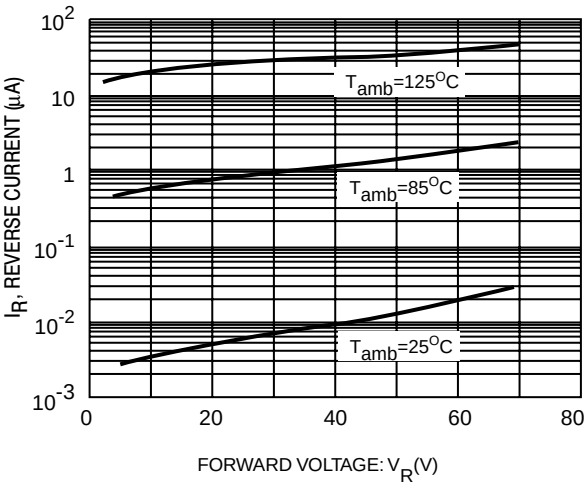

Fig.2 Reverse current as a function of reverse voltage; typical values.

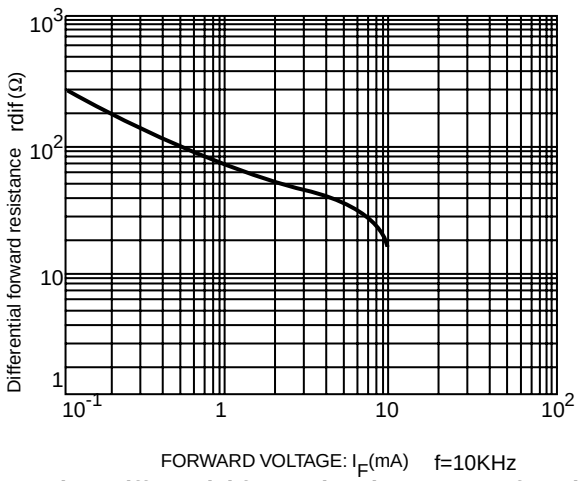

Fig.3 Differential forward resistance as a function of forward current;typical values.

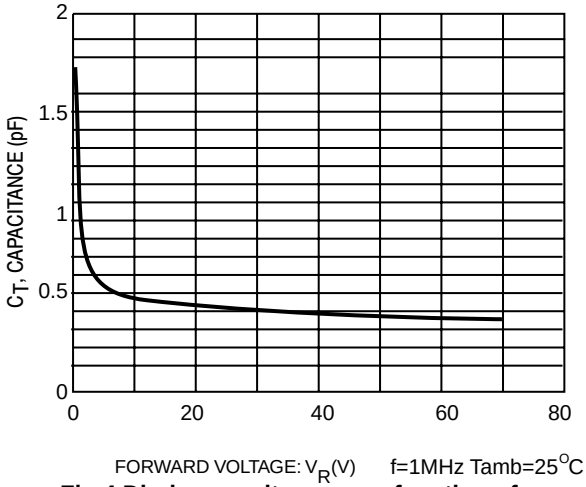

Fig.4 Diode capacitance as a function of reverse voltage;typical values.

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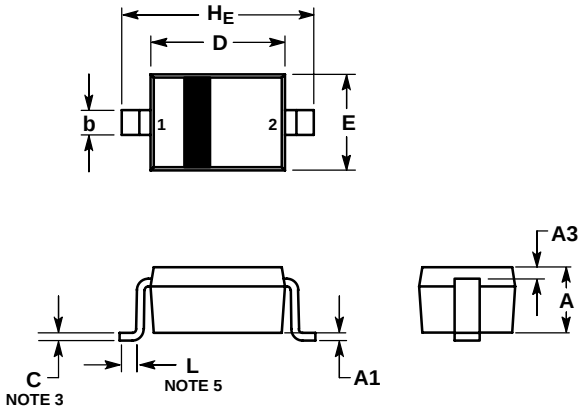

NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
5. DIMENSION L IS MEASURED FROM END OF RADIUS.

	MILLIMETERS			INCHES		
DIM	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*