

# SCHOTTKY BARRIER DIODE

**LBAS170HT1G**

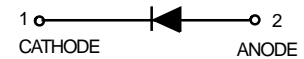
## Features

- 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<sub>c</sub> = 25°C unless otherwise noted)

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

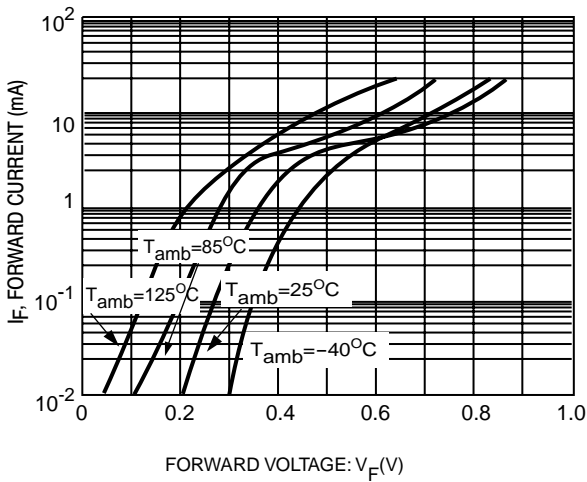
**Note:** (1) Valid provided that electrodes are kept at ambient temperature

## Electrical Characteristics (T<sub>c</sub> = 25°C unless otherwise noted)

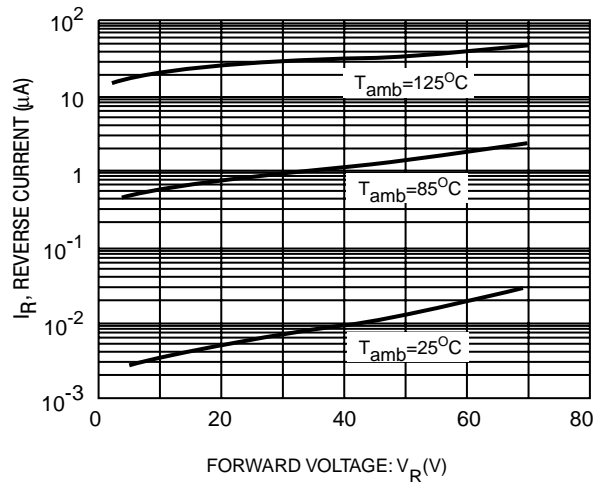
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	I <sub>R</sub> = 10μA (pulsed)	70	—	—	V
Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 50V V <sub>R</sub> = 70V	— —	— —	0.1 10	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1mA I <sub>F</sub> = 10mA I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

**Note:** (1) Pulse test; t<sub>p</sub> ≤ 300μs

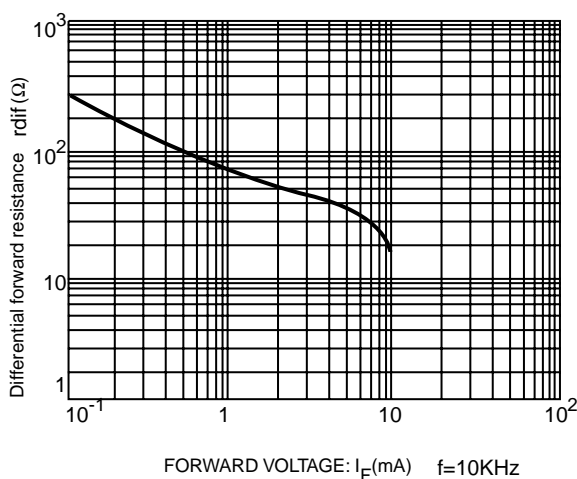
Electrical characteristic curves( $T_A = 25^\circ\text{C}$ )



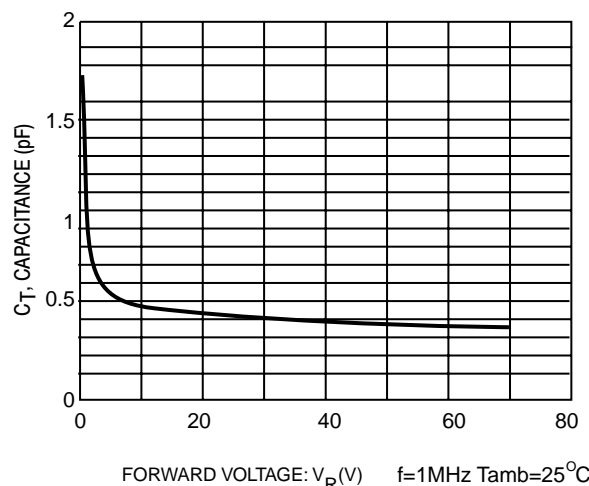
**Fig.1** Forward current as a function of forward voltage; typical values.



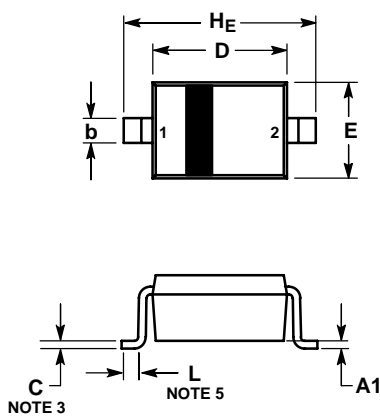
**Fig.2** Reverse current as a function of reverse voltage; typical values.



**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.

**LBAS170HT1G**
**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\***
