

LBAS16TW1T1G

SURFACE MOUNT FAST SWITCHING DIODE

LBAS16TW1T1G
S-LBAS16TW1T1G

Features

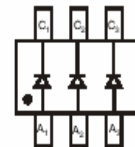
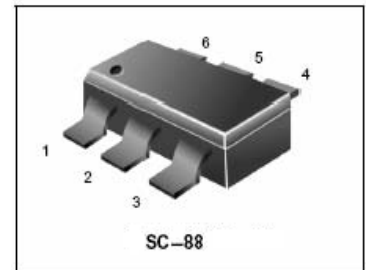
Fast Switching Speed
Ultra-Small Surface Mount Package
For General Purpose Switching Applications
High Conductance
Also Available in Lead Free Version

- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

Pb-Free package is available

DEVICE MARKING

LBAS16TW1T1G=KA2



Maximum Ratings @ T_A = 25°C unless otherwise specified

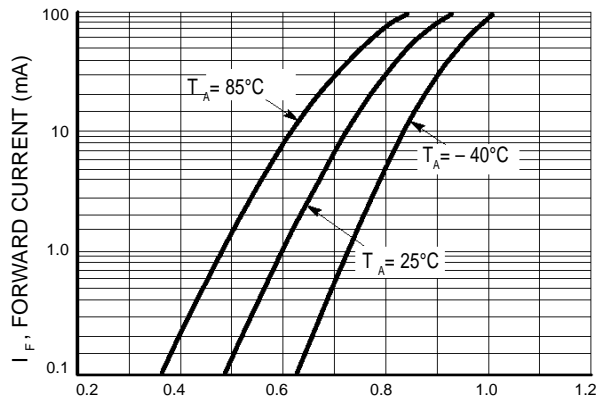
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	75	V
RMS Reverse Voltage	V _{R(RMS)}	53	V
Forward Continuous Current (Note 1)	I _{FM}	300	mA
Average Rectified Output Current (Note 1)	I _O	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I _{FSM}	2.0 1.0	A
Power Dissipation (Note 1)	P _d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

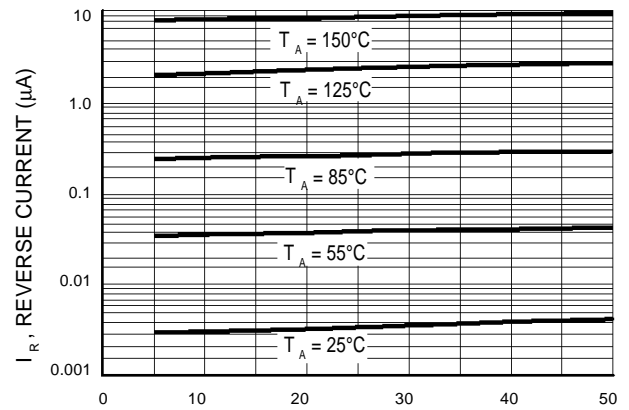
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	75	—	V	I _R = 1μA
Forward Voltage (Note 2)	V _F	—	0.715 0.855 1.0 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Reverse Current (Note 2)	I _R	—	1.0 50 30 25	μA μA μA nA	V _R = 75V V _R = 75V, T _j = 150°C V _R = 25V, T _j = 150°C V _R = 20V
Total Capacitance	C _T	—	2.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	4.0	ns	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

- Notes:
1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 2. Short duration test pulse used to minimize self-heating effect.

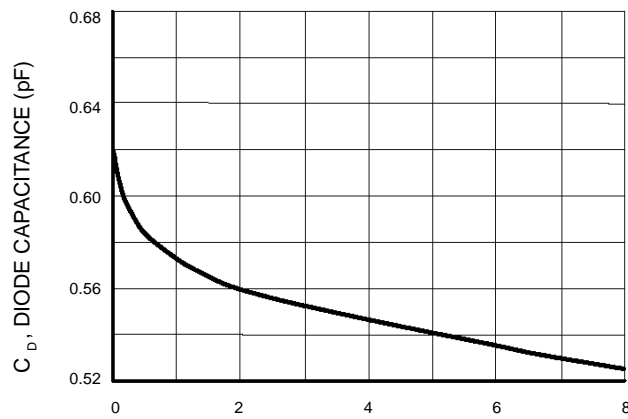
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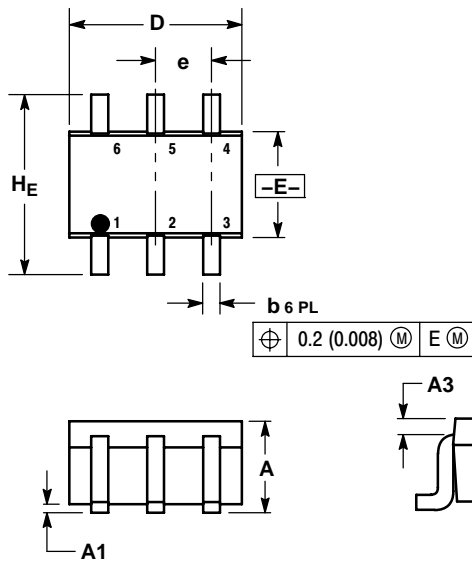
V_F , FORWARD VOLTAGE (VOLTS)
Figure 2. Forward Voltage



V_R , REVERSE VOLTAGE (VOLTS)
Figure 3. Leakage Current

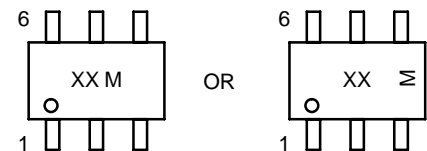


V_R , REVERSE VOLTAGE (VOLTS)
Figure 4. Capacitance

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NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. 419B-01 OBSOLETE, NEW STANDARD 419B-02.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.95	1.10	0.031	0.037	0.043
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.20 REF			0.008 REF		
b	0.10	0.21	0.30	0.004	0.008	0.012
C	0.10	0.14	0.25	0.004	0.005	0.010
D	1.80	2.00	2.20	0.070	0.078	0.086
E	1.15	1.25	1.35	0.045	0.049	0.053
e	0.65 BSC			0.026 BSC		
L	0.10	0.20	0.30	0.004	0.008	0.012
HE	2.00	2.10	2.20	0.078	0.082	0.086

GENERIC MARKING DIAGRAM*


XX = Specific Device Code
M = Date Code