Switching Diode

LBAS16BST5G

FEATURE

- Small plastic SMD package.
- Continuous reverse voltage: max. 75 V.
- High-speed switching in hybrid thick and thin-film circuits.
- We declare that the material of product compliance with RoHS requirements.

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBAS16BST1G	3*	5000/Tape&Reel
LBAS16BST3G	3*	8000/Tape&Reel
LBAS16BST5G	3*	10000/Tape&Reel

*Rotated 90°

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	75	Vdc
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* T_A = 25°C	P_D	200	mW
Derate above 25°C		1.57	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	°C/W
Junction and Storage Temperature	T_J , T_{stg}	-55to+150	°C

**FR-4 Minimum Pad

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Reverse Voltage Leakage Current	I_R			µAdc
(V_R = 75 Vdc)		—	1.0	
(V_R = 75 Vdc, T_J = 150°C)		—	50	
(V_R = 25 Vdc, T_J = 150°C)		—	30	
Reverse Breakdown Voltage (I_{BR} = 100 µAdc)	$V_{(BR)}$	75	—	Vdc
Forward Voltage	V_F			mV
(I_F = 1.0 mAdc)		—	715	
(I_F = 10 mAdc)		—	855	
(I_F = 50 mAdc)		—	1000	
(I_F = 150 mAdc)		—	1250	
Diode Capacitance (V_R = 0, f = 1.0 MHz)	C_D	—	2.0	pF
Forward Recovery Voltage (I_F = 10 mAdc, t_r = 20 ns)	V_{FR}	—	1.75	Vdc
Reverse Recovery Time (I_F = I_R = 10 mAdc, R_L = 50 Ω)	t_{rr}	—	4.0	ns
Stored Charge (I_F = 10 mAdc to V_R = 5.0 Vdc, R_L = 500 Ω)	Q_S	—	45	pC

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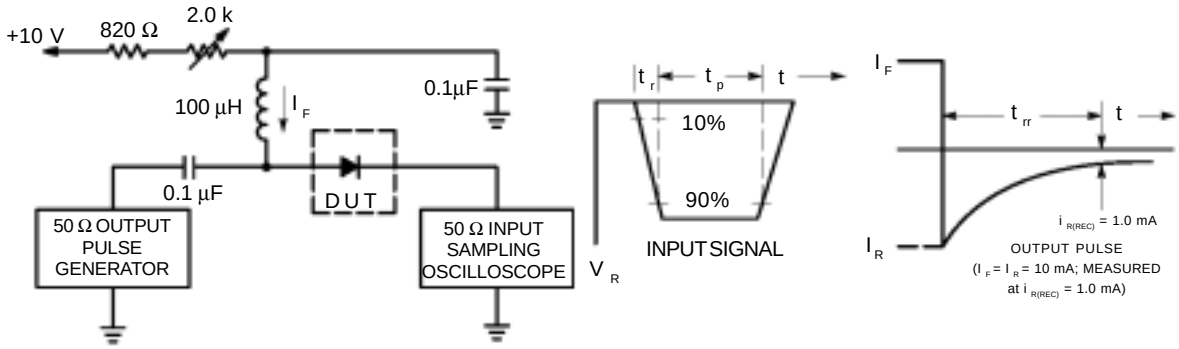

Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

TYPICAL CHARACTERISTICS

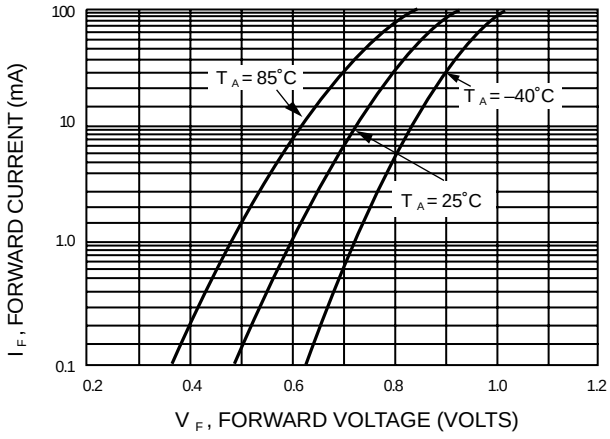

Figure 2. Forward Voltage

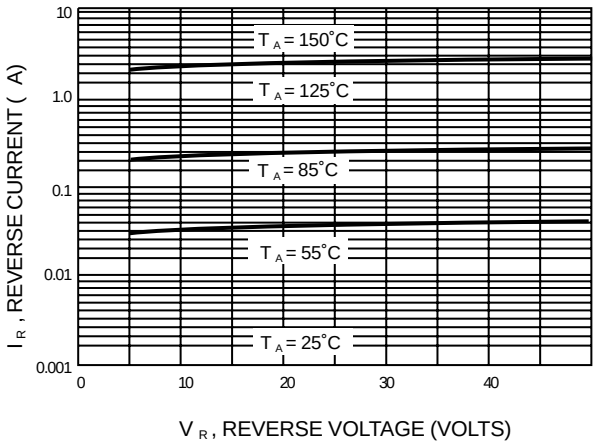

Figure 3. Leakage Current

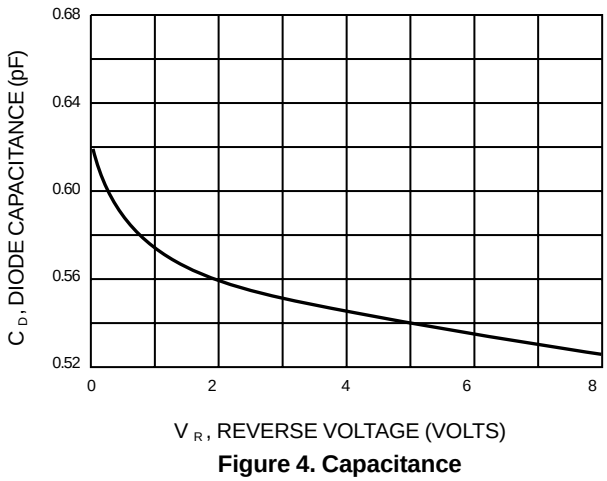

Figure 4. Capacitance

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OUTLINE AND DIMENSIONS

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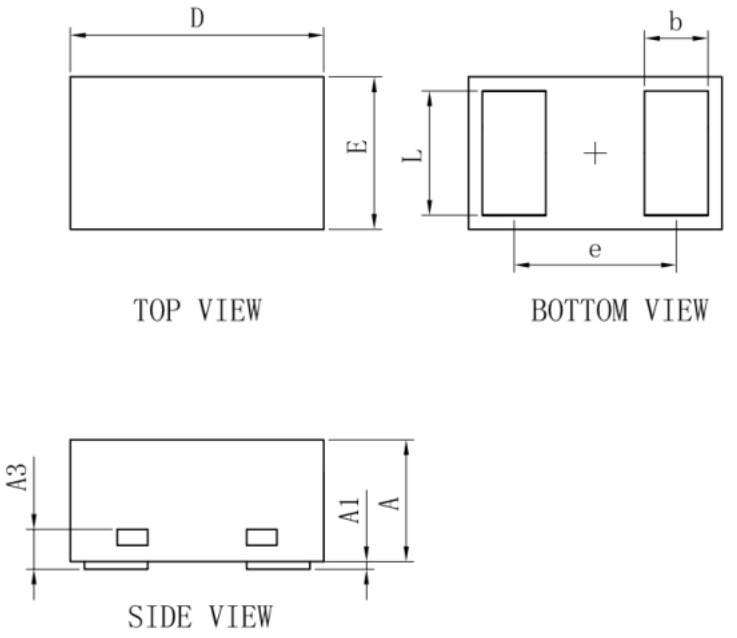

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Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	–	0.64	–
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.43	0.48	0.53
A1	0	–	0.05
A3	0.127REF.		
All Dimensions in mm			

SOLDERING FOOTPRINT

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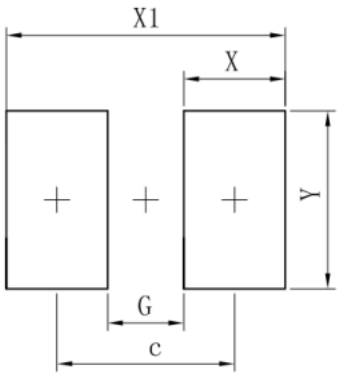

Dimensions	(mm)
c	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70