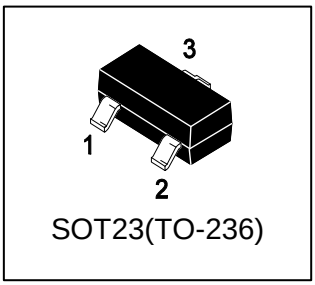
LBAS16LT1G

Switching Diode



SOT23(TO-236)

1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.

2. DEVICE MARKING AND RESISTOR VALUES



Device	Marking	Shipping
LBAS16LT1G	A6	3000/Tape&Reel
LBAS16LT3G	A6	13000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25ºC)

Parameter	Symbol	Limits	Unit
Continuous Reverse Voltage	VR	100	V
Peak Forward Current	IF	200	mA
Peak Forward Surge Current	IFSM	500	mA

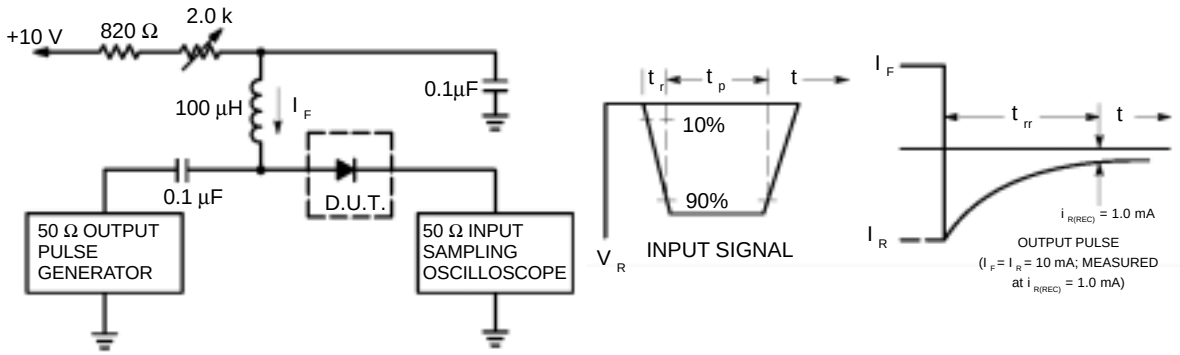
4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation FR– 5 Board, (Note 1) TA = 25°C Derate above 25°C	PD	 225 1.8	 mW mW/℃
Thermal Resistance, Junction to Ambient	RθJA	556	℃/W
Total Device Dissipation Alumina Substrate, (Note 2) TA = 25°C Derate above 25°C	PD	 300 2.4	 mW mW/℃
Thermal Resistance, Junction to Ambient	RθJA	417	℃/W
Junction and Storage Temperature	TJ , Tstg	-55~+150	℃

1. FR–5 = 1.0 x 0.75 x 0.062 in.
2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

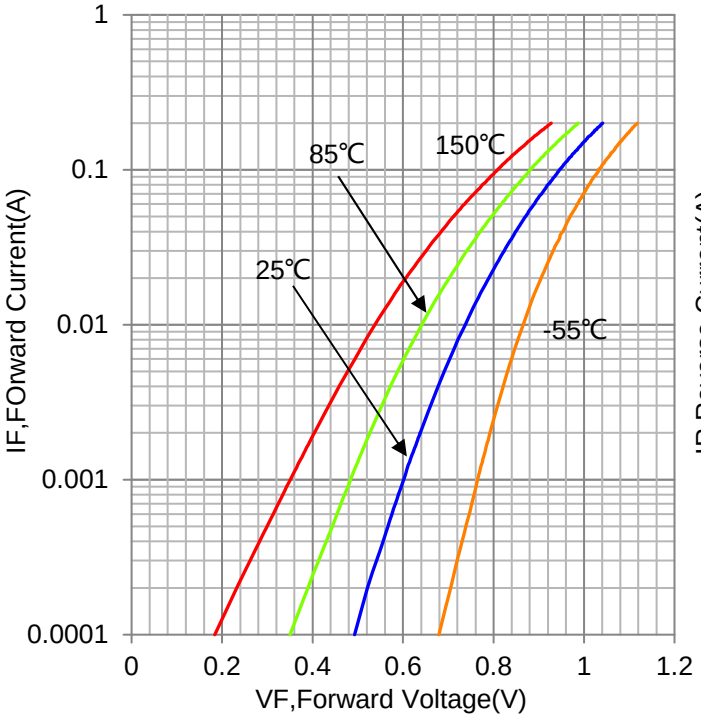
CHARACTERISTICS	Symbol	Min	Max	Unit
Reverse Voltage Leakage Current (VR=75V) (VR=75V, TJ = 150°C) (VR=25V, TJ = 150°C)	IR	 - - -	 1 50 30	μA
Reverse Breakdown Voltage (IBR = 100 μA)	VBR	 100	 -	V
Forward voltage (IF =1mA) (IF =10mA) (IF =50mA) (IF =150mA)	VF	 - - - -	 715 855 1000 1250	mV
Diode capacitance (f=1MHz,VR =0)	Cd	 -	 2	pF
Forward Recovery Voltage (IF = 10 mA, tr = 20ns)	VFR	 -	 1.75	V
Reverse Recovery Time (IF = IR = 10mA, RL = 50Ω)	Trr	 -	 6	nS
Stored Charge (IF = 10 mA to VR = 5.0V, RL = 500Ω)	QS	 -	 45	pC



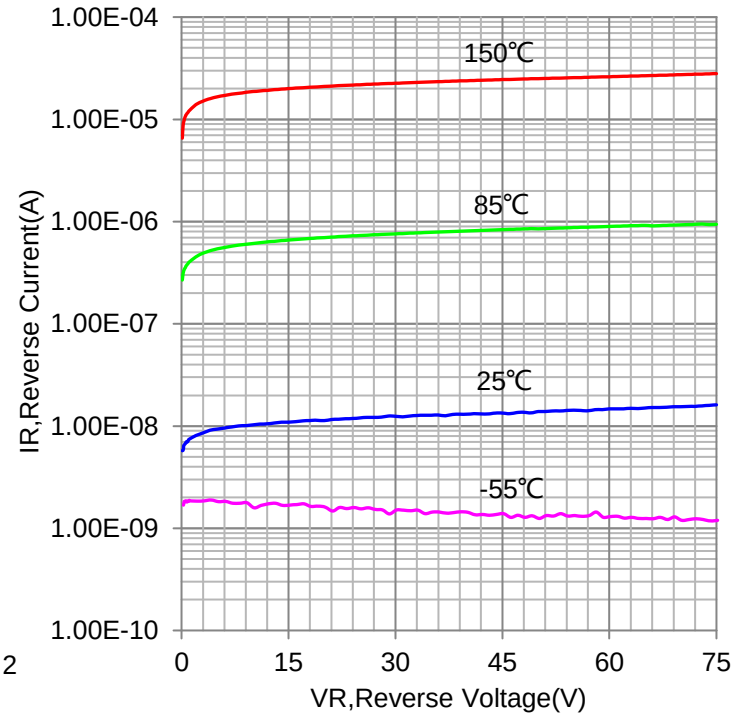
Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

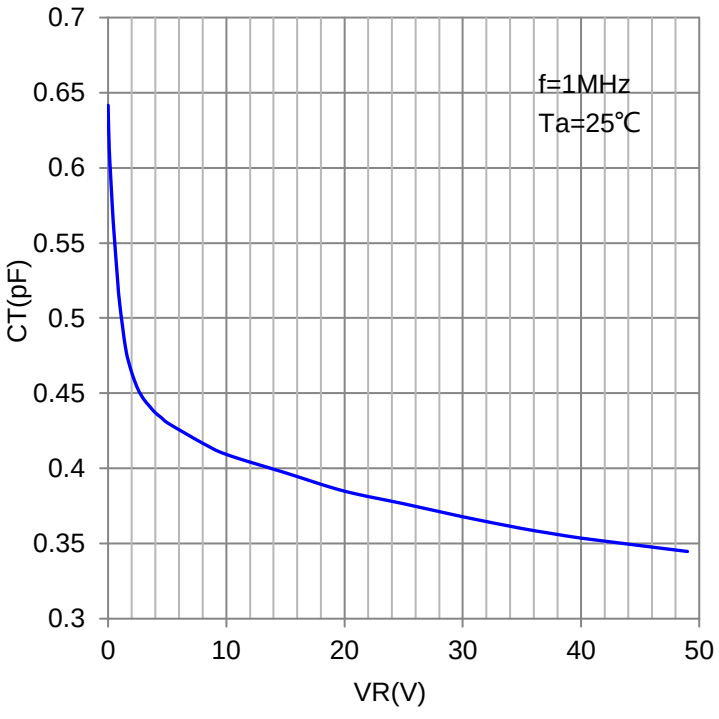
6.ELECTRICAL CHARACTERISTICS CURVES



IF vs. VF

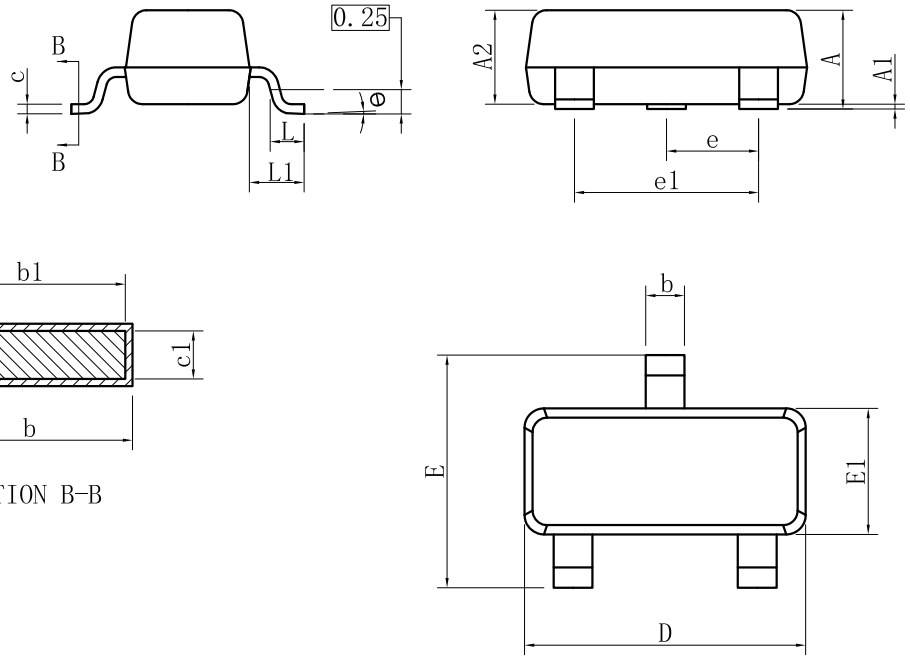


IR vs. VR



CT vs. VR

7.OUTLINE AND DIMENSIONS

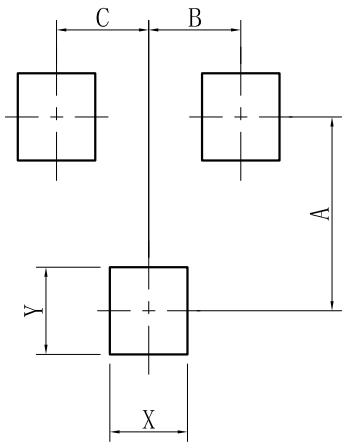


SOT23			
DIM	MIN	NOR	MAX
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.50
b1	0.30	0.40	0.45
c	0.08	-	0.20
c1	0.08	0.10	0.16
D	2.80	2.90	3.04
E	2.10	-	2.64
E1	1.20	1.30	1.40
e	0.95BSC		
e1	1.90BSC		
L	0.40	0.46	0.60
L1	0.54REF		
θ	0°	-	8°
All Dimensions in mm			

GENERAL NOTES

1. Top package surface finish Ra0.4±0.2um
2. Bottom package surface finish Ra0.7±0.2um
3. Side package surface finish Ra0.4±0.2um

8.SOLDERING FOOTPRINT



SOT-23	
DIM	(mm)
X	0.80
Y	0.90
A	2.00
B	0.95
C	0.95

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.

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