

# Dual Switching Diodes

## Features

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

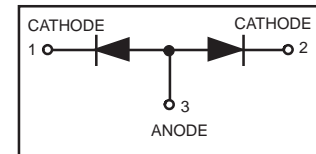
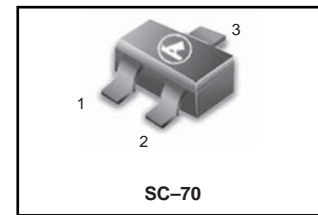
## DEVICE MARKING

LBAW56WT1G = A1

## MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

Rating	Symbol	Max	Unit
Reverse Voltage	V <sub>R</sub>	70	Vdc
Forward Current	I <sub>F</sub>	200	mAdc
Peak Forward Surge Current	I <sub>FM(surge)</sub>	500	mAdc

## LBAW56WT1G



## Ordering Information

Device	Marking	Shipping
LBAW56WT1G	A1	3000/Tape&Reel
LBAW56WT3G	A1	10000/Tape&Reel

## THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board <sup>(1)</sup> T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub>	200	mW
Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	0.625	°C/W
Total Device Dissipation Alumina Substrate <sup>(2)</sup> T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub>	300	mW
Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	417	°C/W
Junction and Storage Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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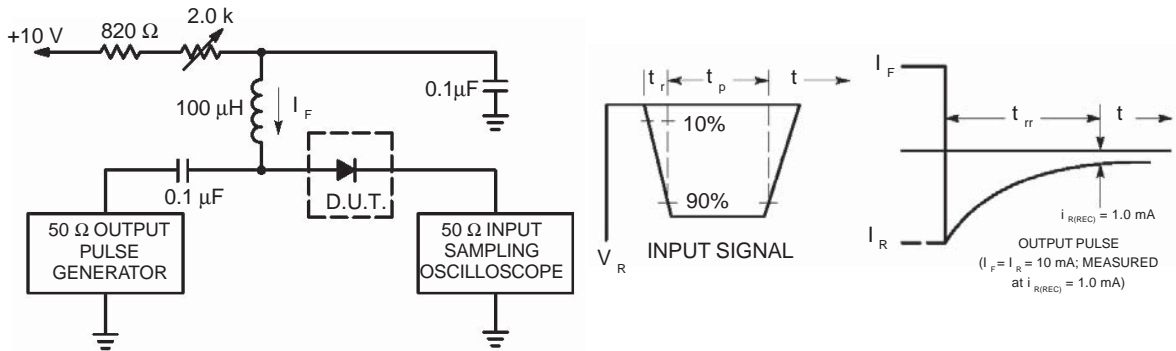
## OFF CHARACTERISTICS

Reverse Breakdown Voltage (I <sub>BR</sub> ) = 100 μAdc)	V <sub>(BR)</sub>	70	—	Vdc
Reverse Voltage Leakage Current (V <sub>R</sub> = 25 Vdc, T <sub>J</sub> = 150°C) (V <sub>R</sub> = 70 Vdc) (V <sub>R</sub> = 70 Vdc, T <sub>J</sub> = 150°C)	I <sub>R</sub>	—	30 2.5 50	μAdc
Diode Capacitance (V <sub>R</sub> = 0, f = 1.0 MHz)	C <sub>D</sub>	—	2.0	pF
Forward Voltage (I <sub>F</sub> = 1.0 mAdc) (I <sub>F</sub> = 10 mAdc) (I <sub>F</sub> = 60 mAdc) (I <sub>F</sub> = 150 mAdc)	V <sub>F</sub>	—	715 855 1000 1250	mVdc
Reverse Recovery Time (I <sub>F</sub> = I <sub>R</sub> = 10 mAdc, R <sub>L</sub> = 100 Ω, I <sub>R(REC)</sub> = 1.0 mAdc) (Figure 1)	t <sub>tr</sub>	—	6.0	ns

1. FR-5 = 1.0 × 0.75 × 0.062 in.

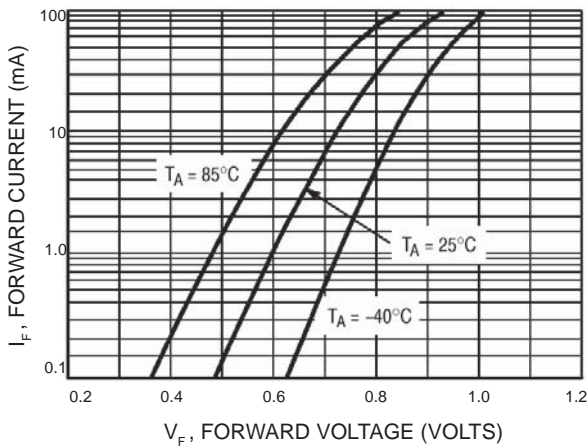
2. Alumina = 0.4 × 0.3 × 0.024 in. 99.5% alumina.

**LBAW56WT1G**

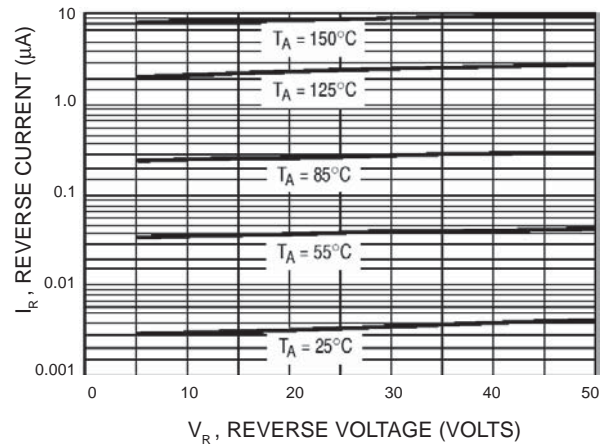


- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10mA.
- 2. Input pulse is adjusted so  $I_{R(peak)}$  is equal to 10mA.
- 3.  $t_p \gg t_{rr}$

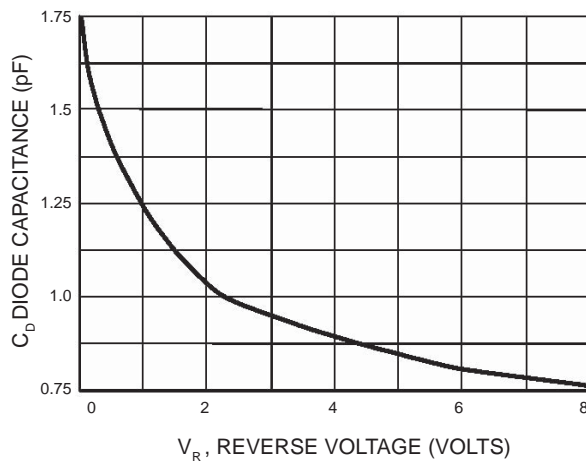
**Figure 1. Recovery Time Equivalent Test Circuit**



**Figure 2. Forward Voltage**



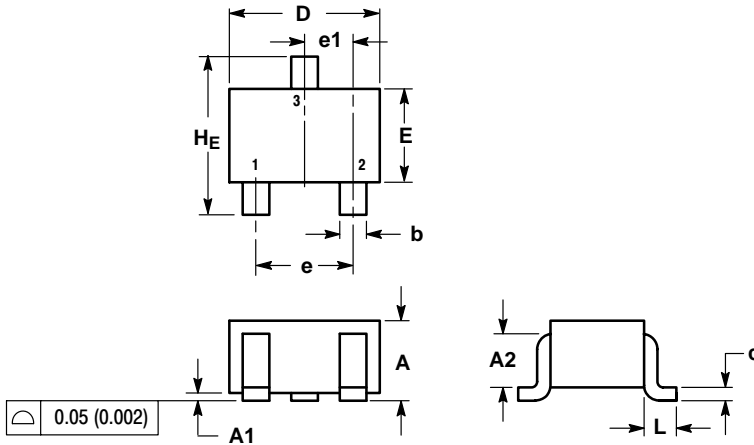
**Figure 3. Leakage Current**



**Figure 4. Capacitance**

**LBAW56WT1G**

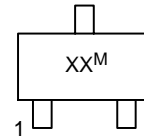
SC-70



NOTES:  
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.  
 2. CONTROLLING DIMENSION: INCH.

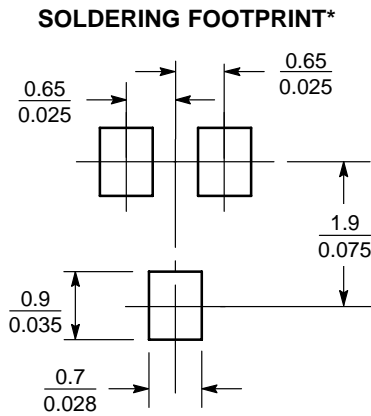
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.032	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A2	0.7 REF			0.028 REF		
b	0.30	0.35	0.40	0.012	0.014	0.016
c	0.10	0.18	0.25	0.004	0.007	0.010
D	1.80	2.10	2.20	0.071	0.083	0.087
E	1.15	1.24	1.35	0.045	0.049	0.053
e	1.20	1.30	1.40	0.047	0.051	0.055
e1	0.65 BSC			0.026 BSC		
L	0.425 REF			0.017 REF		
HE	2.00	2.10	2.40	0.079	0.083	0.095

**GENERIC MARKING DIAGRAM**



- XX = Specific Device Code
- M = Date Code
- = Pb-Free Package

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present.



SCALE 10:1 ( $\frac{\text{mm}}{\text{inches}}$ )