

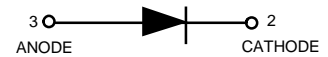
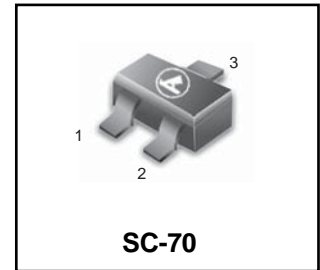
# Switching Diode

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

## DEVICE MARKING ORDERING INFORMATION

Device	Marking	Shipping
LBAL99WT1G	JF	3000 Tape & Reel
LBAL99WT1G	JF	10000 Tape & Reel

## LBAL99WT1G



## Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

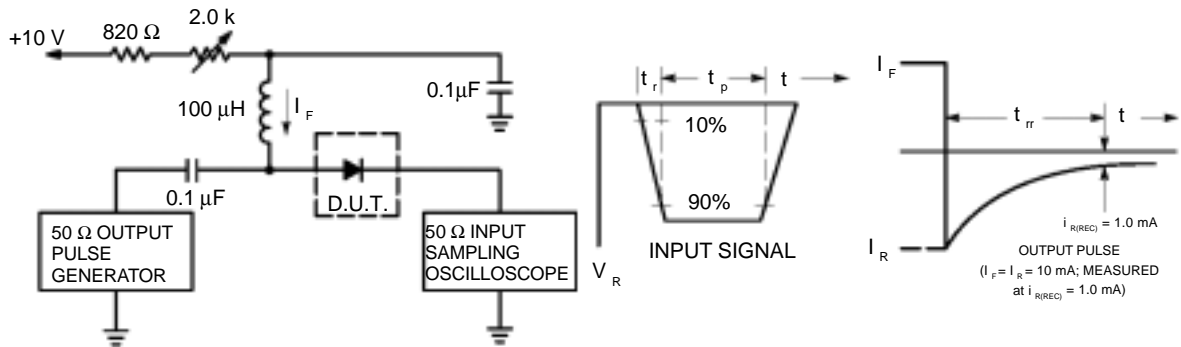
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	75	V
Forward Continuous Current (Note 1)	$I_F$	300	mA
Average Rectified Output Current (Note 1)	$I_O$	150	mA
Peak Forward Surge Current (Note 1) @ $t < 1.0\mu\text{s}$	$I_{FSM}$	2.0	A
Power Dissipation (Note 1)	$P_d$	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150	$^{\circ}\text{C}$

## Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage	$V_F$	—	0.855 1.0	V	@ $I_F = 10\text{mA}$ @ $I_F = 50\text{mA}$
Reverse Leakage Current	$I_R$	—	2.5	$\mu\text{A}$	@ $V_R = 75\text{V}$
Junction Capacitance	$C_j$	—	2.0	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	—	6.0	nS	$I_F = I_R = 10\text{mA},$ $I_{RR} = 0.1 \times I_R, R_L = 100\Omega$

Note: 1.  $FR-5 = 1.0 \times 0.75 \times 0.062$  in.

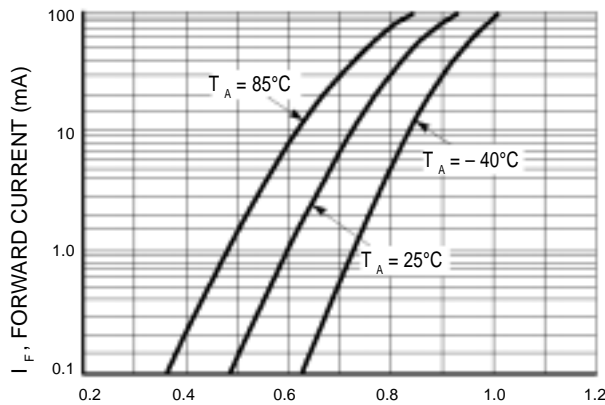
**LBAL99WT1G**



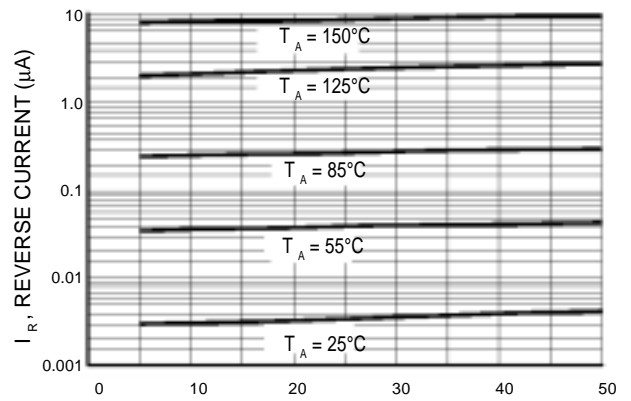
- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10mA.
- 2. Input pulse is adjusted so  $I_{R(\text{peak})}$  is equal to 10mA.
- 3.  $t_p \gg t_{rr}$

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

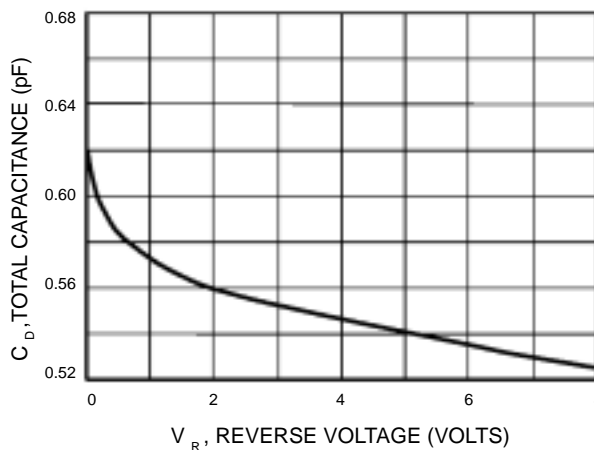
**CURVES APPLICABLE TO EACH DIODE**



**Figure 2. Forward Voltage**



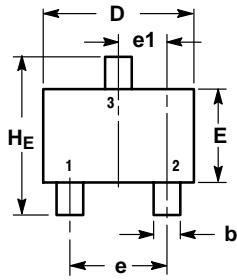
**Figure 3. Leakage Current**



**Figure 4. Capacitance**

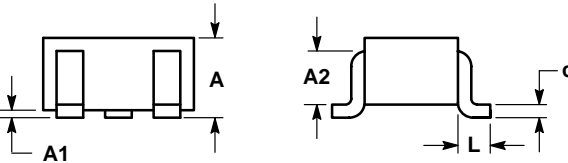
**LBAL99WT1G**

**SC-70 (SOT-323)**

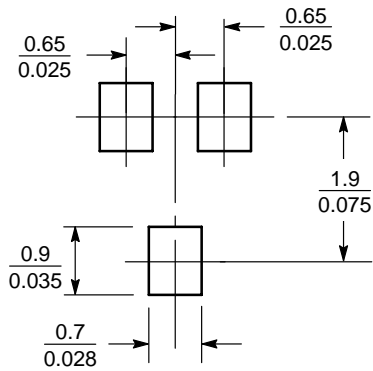


DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.032	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A2	0.7 REF			0.028 REF		
b	0.30	0.35	0.40	0.012	0.014	0.016
c	0.10	0.18	0.25	0.004	0.007	0.010
D	1.80	2.10	2.20	0.071	0.083	0.087
E	1.15	1.24	1.35	0.045	0.049	0.053
e	1.20	1.30	1.40	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

0.05 (0.002)



**SOLDERING FOOTPRINT\***



SCALE 10:1 (mm/inches)