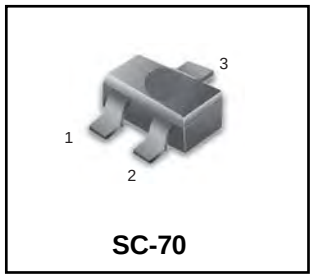
Switching Diode
BAL99WT1G

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



DEVICE MARKING ORDERING INFORMATION

Device	Marking	Shipping
BAL99WT1G	JF	3000 Tape & Reel
BAL99WT1G	JF	10000 Tape & Reel

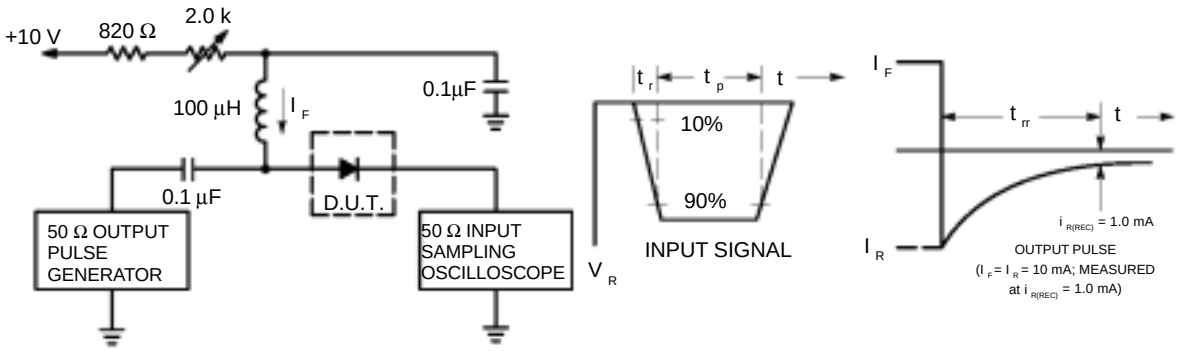
Maximum Ratings @T_A=25°C unless otherwise specified

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
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 < 1.0μs	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	°C

Electrical Characteristics @T_A=25°C unless otherwise specified

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

Note: 1. FR–5 = 1.0 × 0.75 × 0.062 in.



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

CURVES APPLICABLE TO EACH DIODE

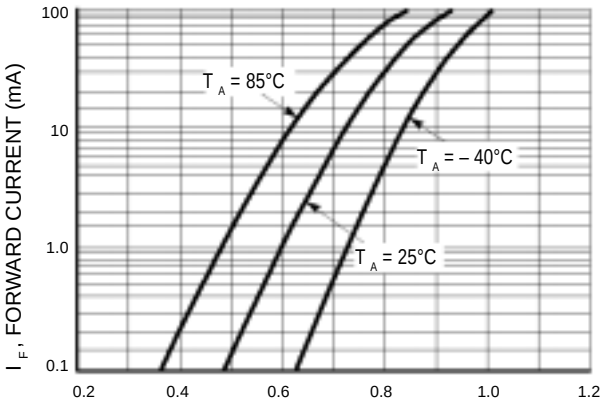


Figure 2. Forward Voltage

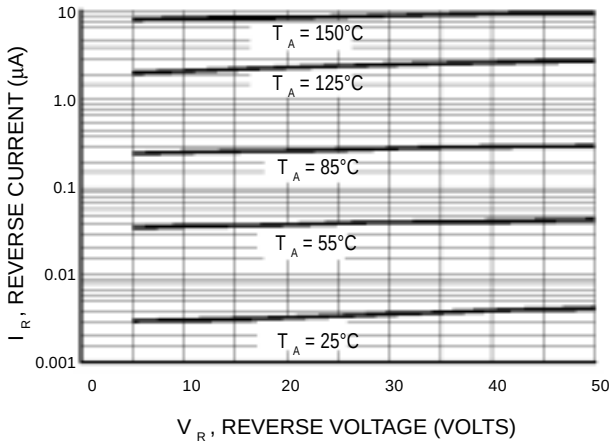


Figure 3. Leakage Current

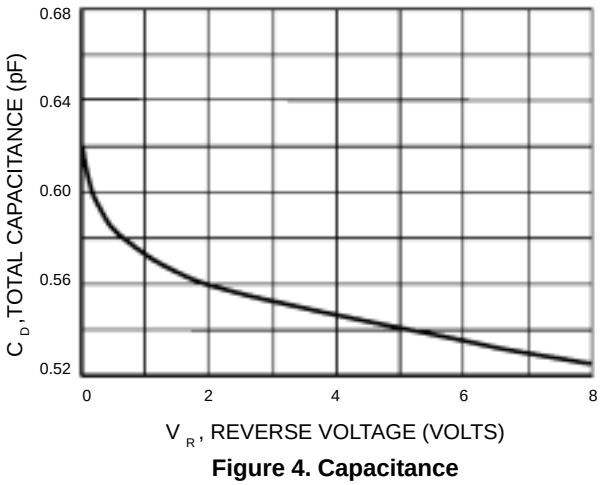
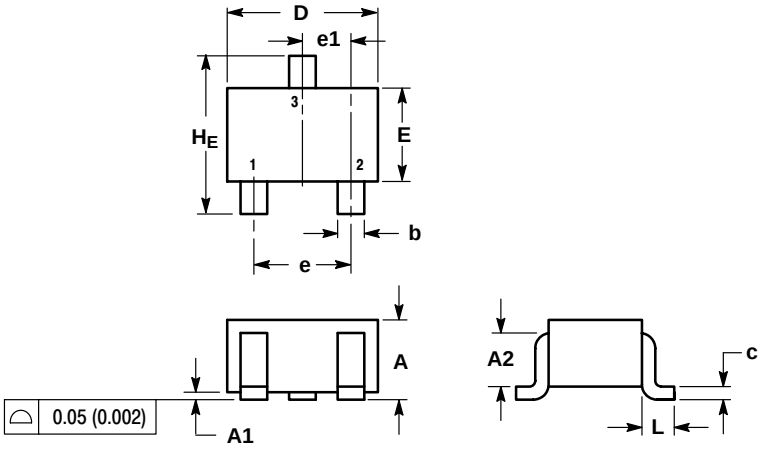


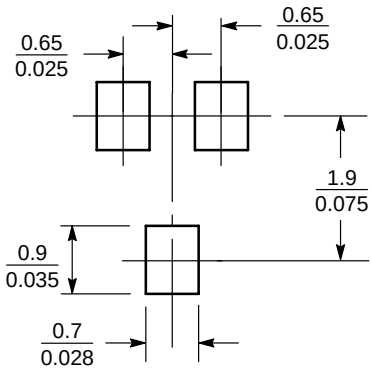
Figure 4. Capacitance

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	
H_E	2.00	2.10	2.40	0.079	0.083	0.095

SOLDERING FOOTPRINT*



SCALE 10:1 (mm / inches)