

Monolithic Dual Switching Diode

Common Anode

Features

- We declare that the material of product compliance with RoHS requirements.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

ORDERING INFORMATION

Device	PACKAGE	Shipping
LBAW56DW1T1G S-LBAW56DW1T1G	SC88	3000 Tape & Reel
LBAW56DW1T3G S-LBAW56DW1T3G	SC88	10000 Tape & Reel

MAXIMUM RATINGS (EACH DIODE)

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	70	Vdc
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-4 Board, (1) $T_A = 25^\circ\text{C}$	P_D	200	mW
Derate above 25°C		1.6	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	600	$^\circ\text{C}/\text{W}$
Total Device Dissipation FR-4 Board(2), $T_A = 25^\circ\text{C}$	P_D	300	mW
Derate above 25°C		2.4	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	400	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

DEVICE MARKING

LBAW56DW1T1G = A1

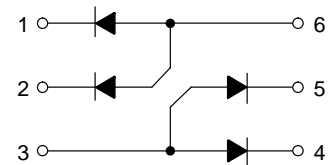
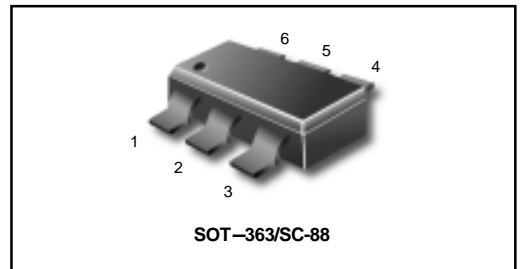
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage ($I_{(BR)} = 100 \mu\text{Adc}$)	$V_{(BR)}$	70	-	Vdc
Reverse Voltage Leakage Current ($V_R = 25 \text{ Vdc}, T_J = 150^\circ\text{C}$)	I_R	-	30	μAdc
($V_R = 70 \text{ Vdc}$)		-	2.5	
($V_R = 70 \text{ Vdc}, T_J = 150^\circ\text{C}$)		-	50	
Diode Capacitance ($V_R = 0, f = 1.0 \text{ MHz}$)	C_D	-	3	pF
Forward Voltage ($I_F = 1.0 \text{ mAdc}$)	V_F	-	715	mVdc
($I_F = 10 \text{ mAdc}$)		-	855	
($I_F = 50 \text{ mAdc}$)		-	1000	
($I_F = 150 \text{ mAdc}$)		-	1250	
Reverse Recovery Time ($I_F = I_R = 10 \text{ mAdc}, I_{R(REC)} = 1.0 \text{ mAdc}$) (Figure 1) $R_L = 100\Omega$	t_{rr}	-	6.0	ns

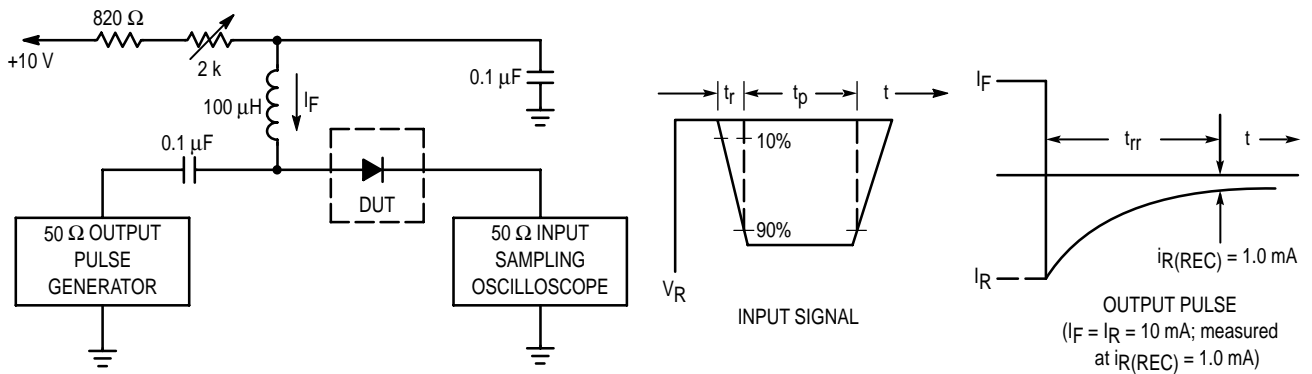
1. FR-5 = 1.0 x 0.75 x 0.062 in.

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

LBAW56DW1T1G
S-LBAW56DW1T1G



LBAW56DW1T1G, S-LBAW56DW1T1G



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

Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH CATHODE

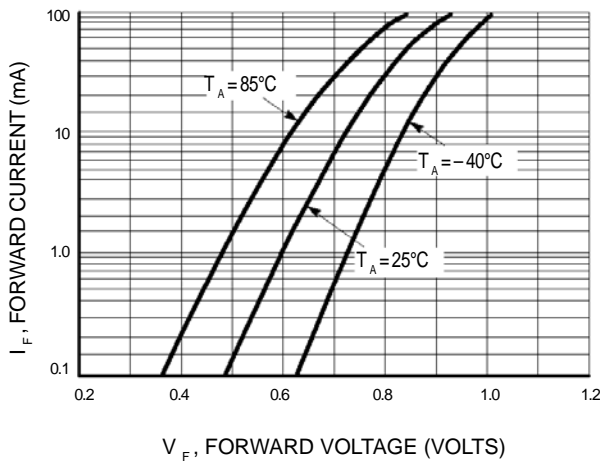


Figure 2. Forward Voltage

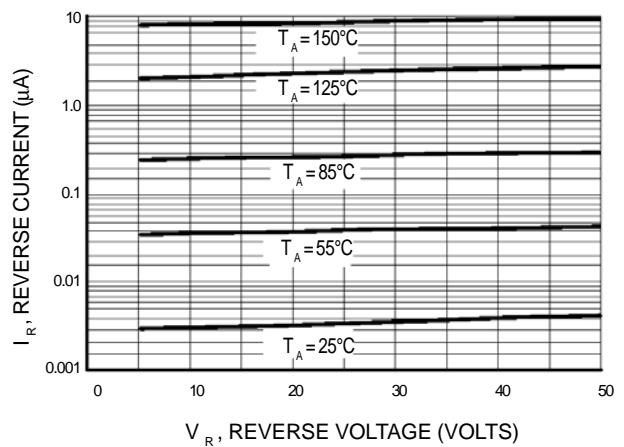


Figure 3. Leakage Current

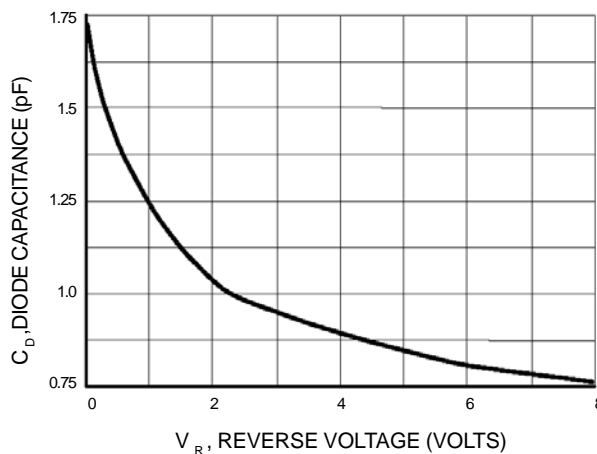
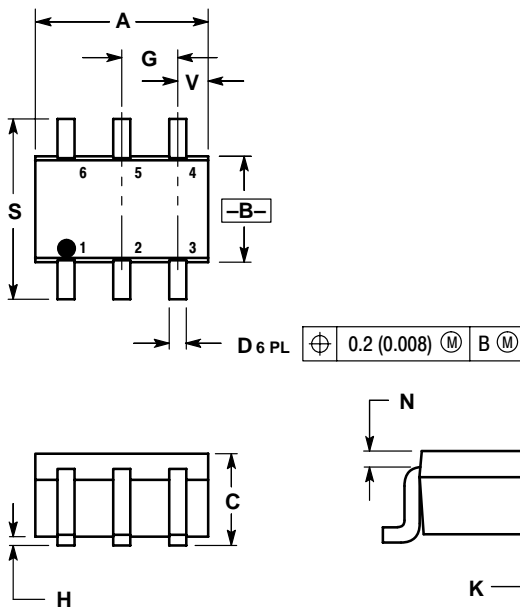


Figure 4. Capacitance

LBAW56DW1T1G, S-LBAW56DW1T1G
PACKAGE DIMENSIONS
SC-88 (SOT-363)


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

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	---	0.004	---	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20
V	0.012	0.016	0.30	0.40

