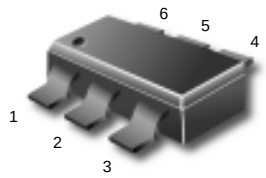
Monolithic Dual Switching Diode

Common Anode

LBAW56DW1T1G
S-LBAW56DW1T1G

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.



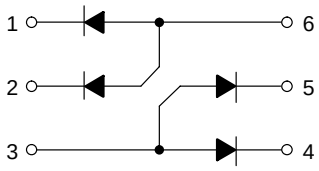
SOT–363/SC-88

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°C	P_D	200	mW
Derate above 25°C		1.6	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	600	°C/W
Total Device Dissipation FR-4 Board(2), T_A = 25°C	P_D	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	400	°C/W
Junction and Storage Temperature	T_J , T_{stg}	–55 to +150	°C

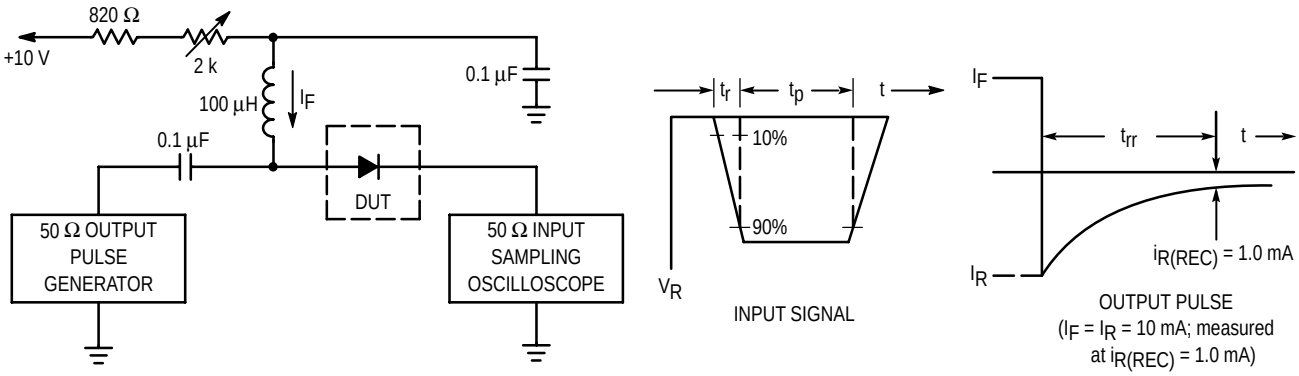
DEVICE MARKING

LBAW56DW1T1G = A1

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Reverse Breakdown Voltage ($I_{(BR)}$ = 100 µAdc)	$V_{(BR)}$	70	–	Vdc
Reverse Voltage Leakage Current	I_R			µAdc
(V_R = 25 Vdc, T_J = 150 °C)		–	30	
(V_R = 70 Vdc)		–	2.5	
(V_R = 70 Vdc, T_J = 150 °C)		–	50	
Diode Capacitance (V_R = 0, f = 1.0 MHz)	C_D	–	3	pF
Forward Voltage	V_F			mVdc
(I_F = 1.0 mAdc)		–	715	
(I_F = 10 mAdc)		–	855	
(I_F = 50 mAdc)		–	1000	
(I_F = 150 mAdc)		–	1250	
Reverse Recovery Time (I_F = I_R = 10 mAdc, $I_{R(REC)}$ = 1.0 mAdc) (Figure 1) R_L = 100Ω	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.



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

CURVES APPLICABLE TO EACH CATHODE

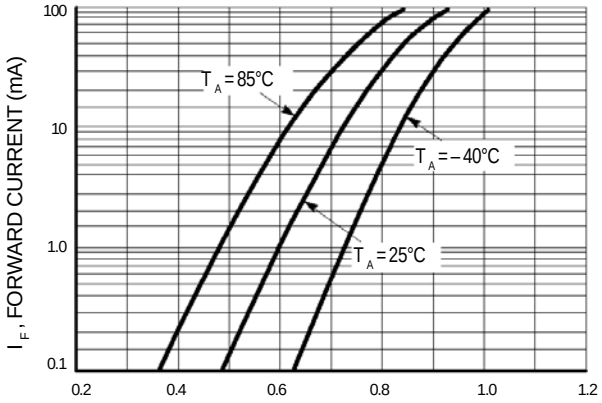


Figure 2. Forward Voltage

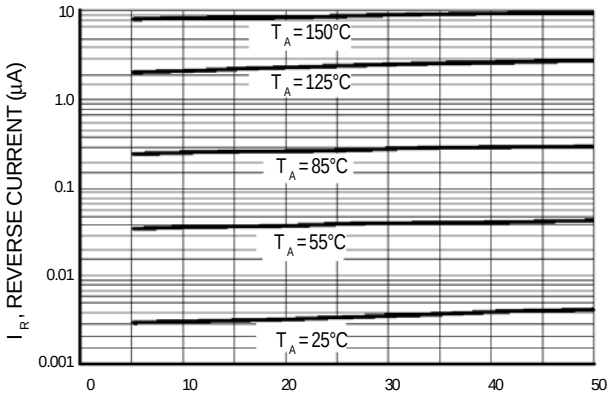


Figure 3. Leakage Current

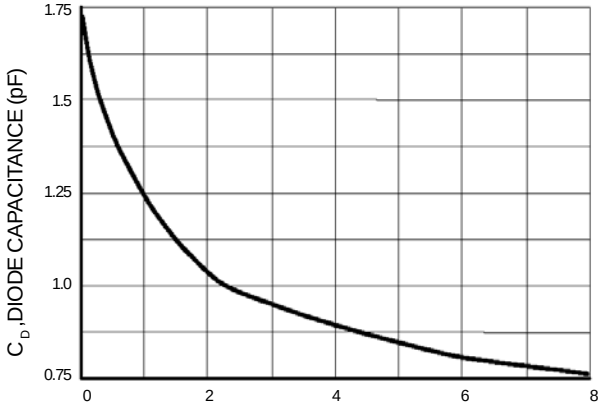
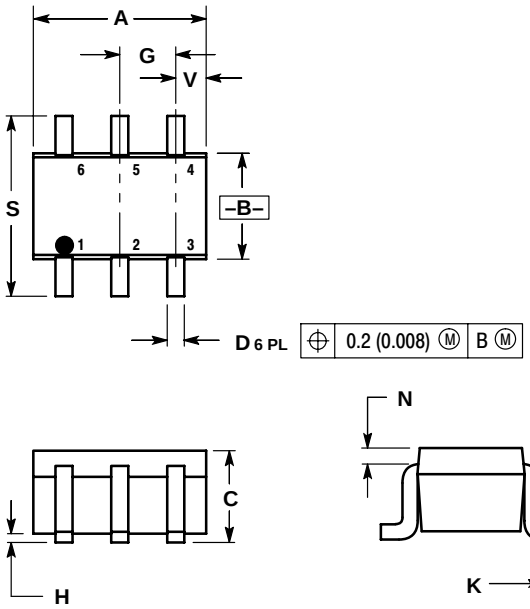


Figure 4. Capacitance

LBAW56DW1T1G, S-LBAW56DW1T1G

PACKAGE DIMENSIONS

SC–88 (SOT–363)



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

	INCHES		MILLIMETERS	
DIM	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

