

Monolithic Dual Switching Diode

Common Cathode

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	Marking	Shipping
LBAV70TT1G S-LBAV70TT1G	A4	3000 Tape & Reel
LBAV70TT3G S-LBAV70TT3G	A4	10000 Tape & Reel

MAXIMUM RATINGS (T_A = 25°C)

Rating	Symbol	Max	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-5 Board ⁽¹⁾ T _A = 25°C	P _D	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	555	°C/W
Total Device Dissipation Alumina Substrate ⁽²⁾ T _A = 25°C	P _D	300	mW
Derate above 25°C		2.9	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	345	°C/W
Junction and Storage Temperature	T _J , T _{stg}	-55 to +150	°C

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

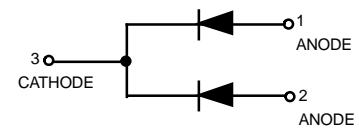
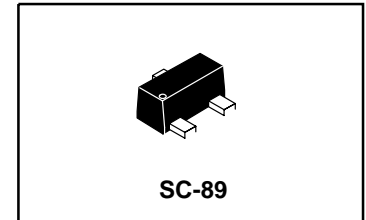
Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

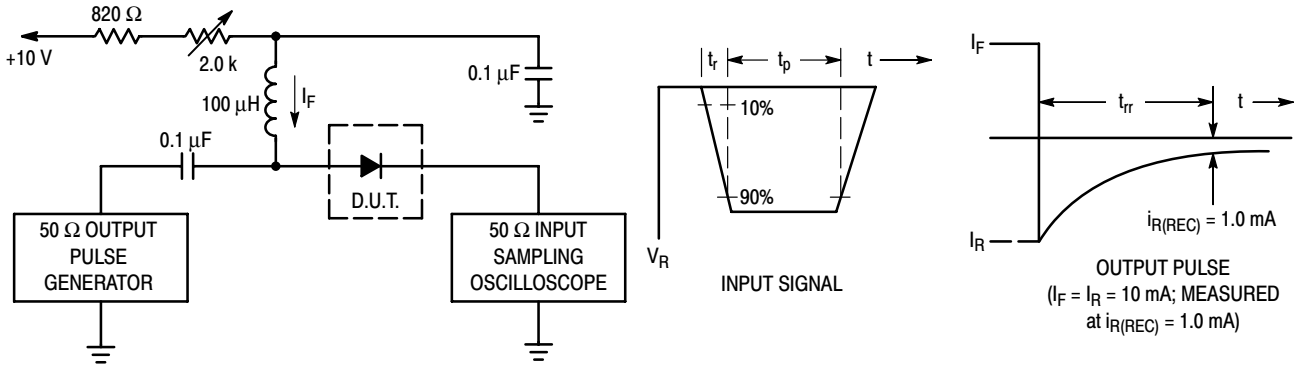
Reverse Breakdown Voltage (I _(BR) = 100 μAdc)	V _(BR)	70	-	Vdc
Reverse Voltage Leakage Current (3) (V _R = 70 Vdc) (V _R = 50 Vdc)	I _R I _R	- -	5.0 100	μAdc nAdc
Diode Capacitance (V _R = 0, f = 1.0 MHz)	C _D	-	1.5	pF
Forward Voltage (I _F = 1.0 mAdc) (I _F = 10 mAdc) (I _F = 50 mAdc) (I _F = 150 mAdc)	V _F	- - - -	715 855 1000 1250	mVdc
Reverse Recovery Time (I _F = I _R = 10 mAdc, R _L = 100 Ω, I _{R(REC)} = 1.0 mAdc) (Figure 1)	t _{rr}	-	6.0	ns
Forward Recovery Voltage (I _F = 10 mAdc, t _r = 20 ns) (Figure 2)	V _{RF}	-	1.75	V

1. FR-5 = 1.0 × 0.75 × 0.062 in.
2. Alumina = 0.4 × 0.3 × 0.024 in. 99.5% alumina.
3. For each individual diode while the second diode is unbiased.

LBAV70TT1G
S-LBAV70TT1G



LBAV70TT1G,S-LBAV70TT1G



- 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 Anode

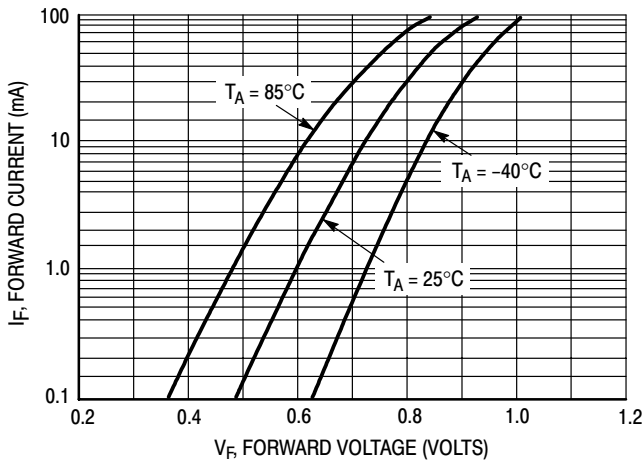


Figure 2. Forward Voltage

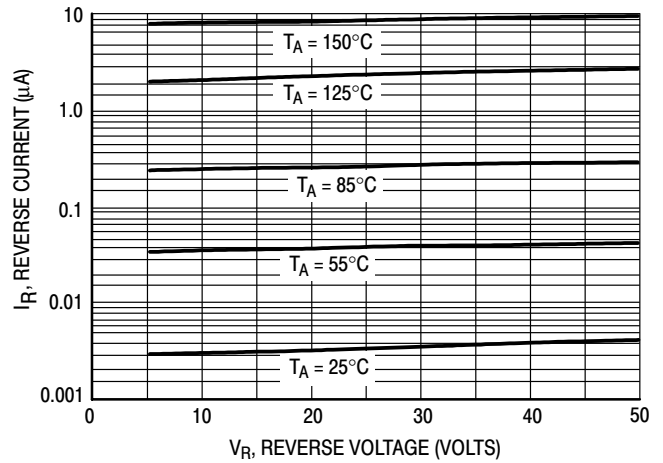


Figure 3. Leakage Current

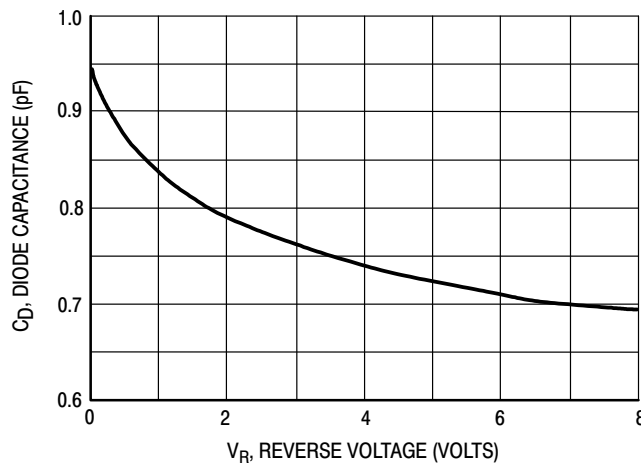
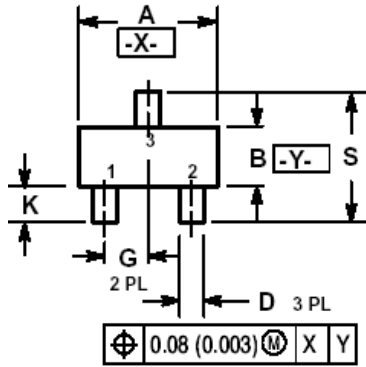


Figure 4. Capacitance

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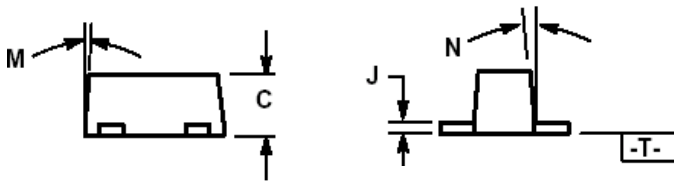
Dimension Outline:



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. 463C-01 OBSOLETE, NEW STANDARD 463C-02.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.50	1.60	1.70	0.059	0.063	0.067
B	0.75	0.85	0.95	0.030	0.034	0.040
C	0.60	0.70	0.80	0.024	0.028	0.031
D	0.23	0.28	0.33	0.009	0.011	0.013
G	0.50 BSC			0.020 BSC		
H	0.53 REF			0.021 REF		
J	0.10	0.15	0.20	0.004	0.006	0.008
K	0.30	0.40	0.50	0.012	0.016	0.020
L	1.10 REF			0.043 REF		
M	---	---	10 °	---	---	10 °
N	---	---	10 °	---	---	10 °
S	1.50	1.60	1.70	0.059	0.063	0.067



Soldering Footprint:

