

Monolithic Dual Switching Diodes

FETURE

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

ORDERING INFORMATION

Device	Marking	Shipping
LMBD2837LT1G	A5	3000/Tape&Reel
LMBD2837LT3G	A5	10000/Tape&Reel
LMBD2838LT1G	MA6	3000/Tape&Reel
LMBD2838LT3G	MA6	10000/Tape&Reel

MAXIMUM RATINGS(EACH DIODE)

Rating	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	75	Vdc
D.C Reverse Voltage	V_R	30	Vdc
	LMBD2837LT1G	50	
	LMBD2838LT1G	50	
Peak Forward Current	I_{FM}	450	mAdc
		300	
Average Rectified Current	I_O	150	mAdc
		100	

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}	556	°C/W
Total Device Dissipation Alumina Substrate, ⁽²⁾ T _A = 25°C	P _D	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	417	°C/W
Junction and Storage Temperature	T _J , T _{sto}	–55 to +150	°C

DEVICE MARKING

LMBD2837LT1G = A5; LMBD2838T1G = MA6

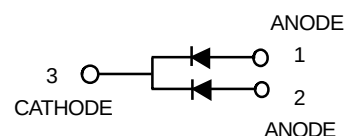
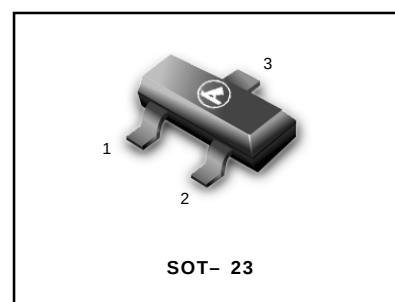
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Max	Unit	
OFF CHARACTERISTICS					
Reverse Breakdown Voltage($I_{(BR)} = 100\mu\text{Adc}$)	LMBD2837LT1G	$V_{(BR)}$	35	—	Vdc
	LMBD2838LT1G		75	—	
Reverse Voltage Leakage Current		I_R	—		μAdc
($V_R = 30\text{ Vdc}$)	LMBD2837LT1G		—	0.1	
($V_R = 50\text{ Vdc}$)	LMBD2838LT1G			0.1	
Diode Capacitance		C_T	—	4.0	pF
($V_R = 0\text{ V}$, $f = 1.0\text{ MHz}$)					
Forward Voltage($I_F = 10\text{ mAdc}$)		V_F	—	1.0	Vdc
($I_F = 50\text{ mAdc}$)			—	1.0	
($I_F = 100\text{ mAdc}$)			—	1.2	
Reverse Recovery Time($I_{F1} = 10\text{ mAdc}$, $I_{R(REC)} = 1.0\text{ mAdc}$)(Figure 1)		t_{rr}	—	4.0	ns

$$1. \text{FR-5} = 1.0 \times 0.75 \times 0.062 \text{ in.}$$

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

LMBD2837LT1G
LMBD2838LT1G



LMBD2837LT1G LMBD2838LT1G

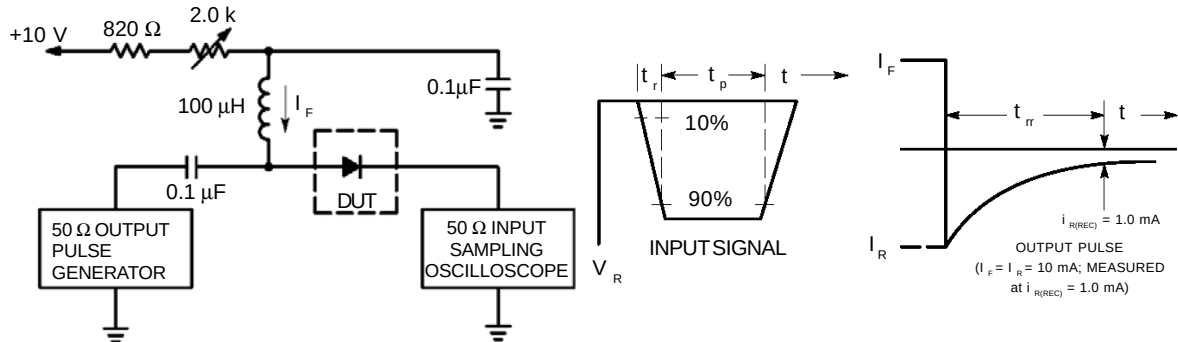
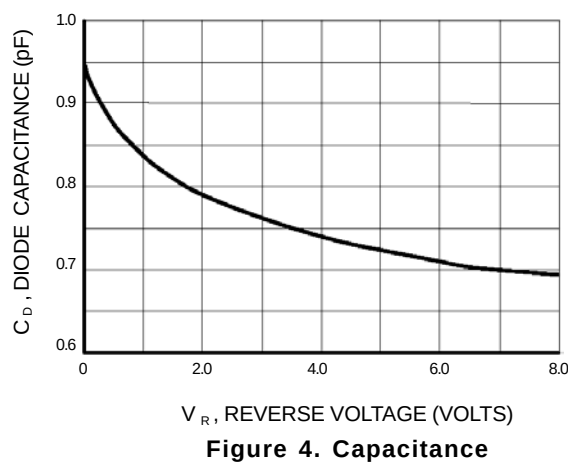
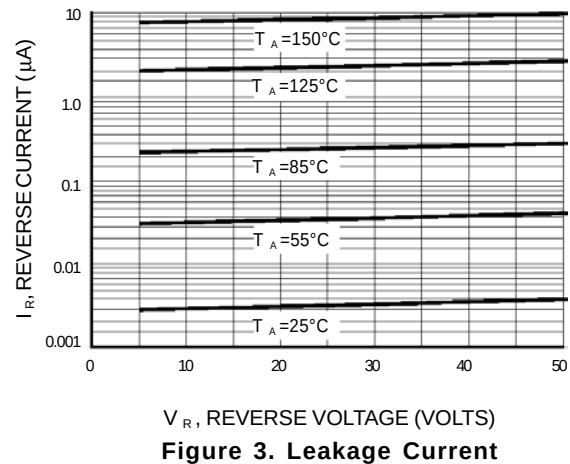
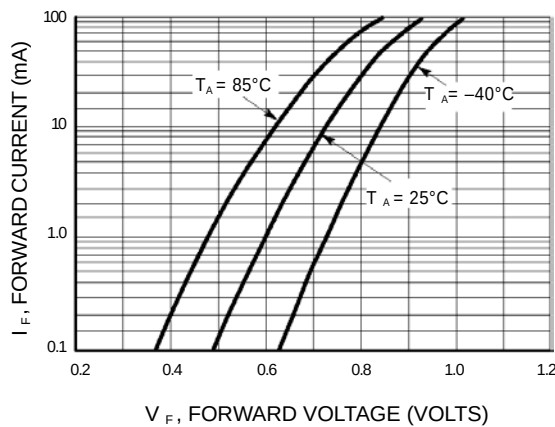


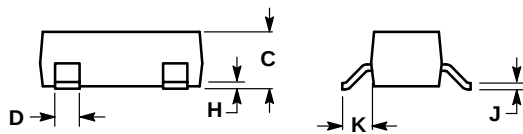
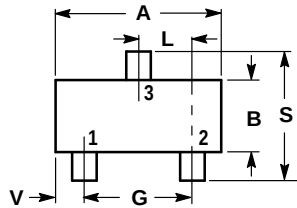
Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH CATHODE



LMBD2837LT1G LMBD2838LT1G

SOT-23



NOTES:

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

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. ANODE
 2. NO CONNECTION
 3. CATHODE

