

Monolithic Dual Switching Diodes

FETURE

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

ORDERING INFORMATION

Device	Marking	Shipping
LMBD2835LT1G	A3X	3000/Tape&Reel
LMBD2835LT3G	A3X	10000/Tape&Reel
LMBD2836LT1G	A2X	3000/Tape&Reel
LMBD2836LT3G	A2X	10000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	75	Vdc
D.C Reverse Voltage	V_R	35	Vdc
	LMBD2835LT1G	75	
	LMBD2836LT1G		
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⁾ $T_A = 25^\circ\text{C}$	P_D	225	mW
Derate above 25°C		1.8	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Total Device Dissipation	P_D	300	mW
Alumina Substrate, ⁽²⁾ $T_A = 25^\circ\text{C}$			
Derate above 25°C		2.4	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

DEVICE MARKING

LMBD2835LT1G = A3X; LMBD2836LT1G = A2X

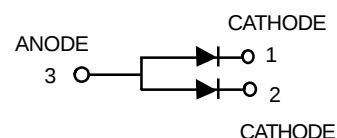
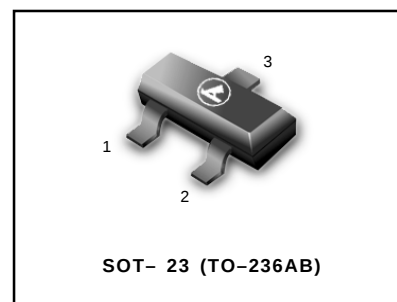
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)(EACH DIODE)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Reverse Breakdown Voltage($I_R = 100 \mu\text{Adc}$)	$V_{(BR)}$	35	—	Vdc
	LMBD2835LT1	75	—	
	LMBD2836LT1			
Reverse Voltage Leakage Current ($V_R = 30 \text{ Vdc}$)	I_R	—	100	nAdc
($V_R = 50 \text{ Vdc}$)		—	100	
Diode Capacitance ($V_R = 0, f = 1.0 \text{ MHz}$)	C_T	—	4.0	pF
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($I_F = I_R = 10 \text{ mAdc}, I_{R(REC)} = 1.0 \text{ mAdc}$) (Figure 1)	t_{rr}	—	4.0	ns

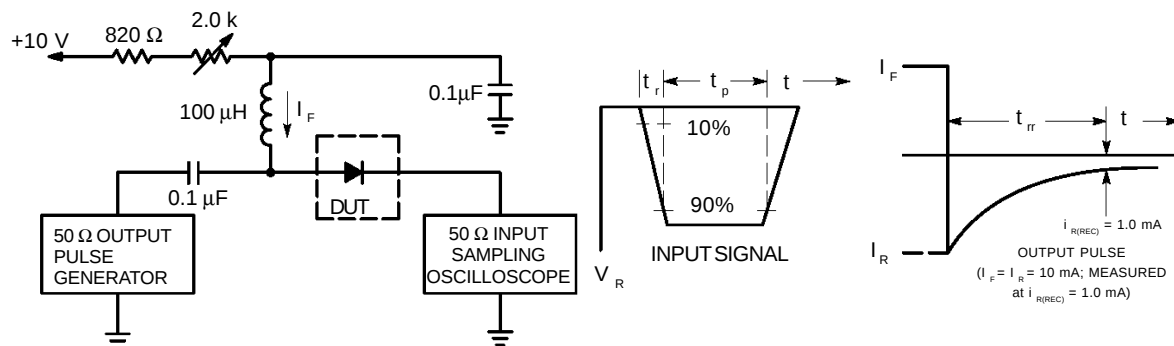
1. FR-5 = $1.0 \times 0.75 \times 0.062 \text{ in.}$

2. Alumina = $0.4 \times 0.3 \times 0.024 \text{ in.}$ 99.5% alumina.

LMBD2835LT1G
LMBD2836LT1G



LMBD2835LT1G LMBD2836LT1G



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

Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH CATHODE

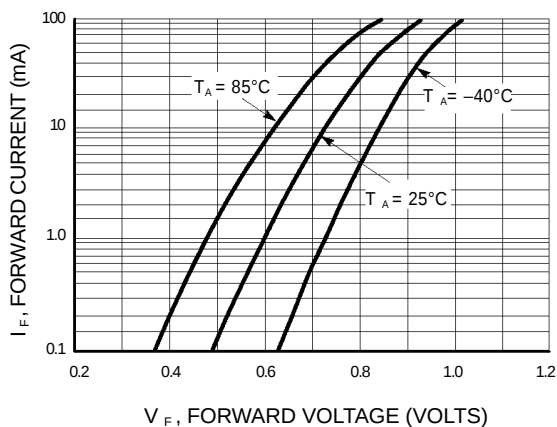


Figure 2. Forward Voltage

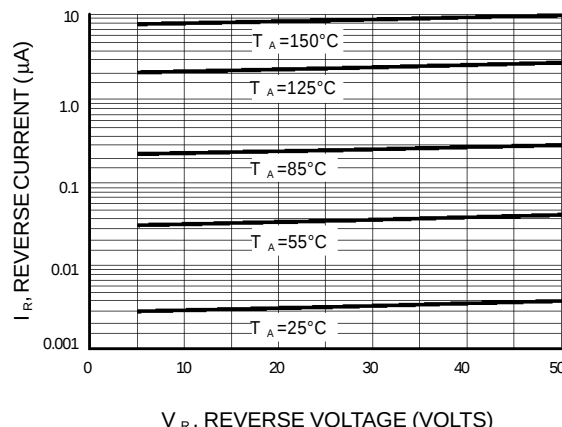


Figure 3. Leakage Current

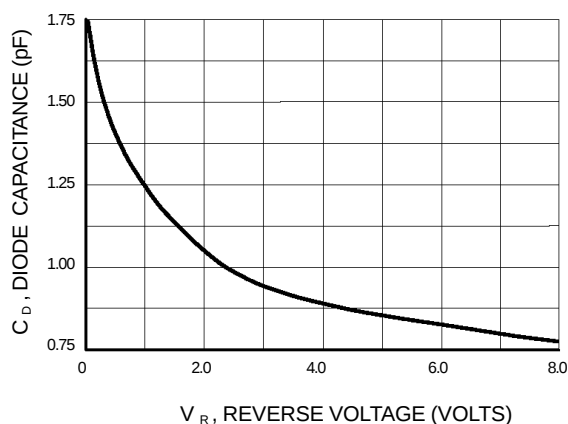
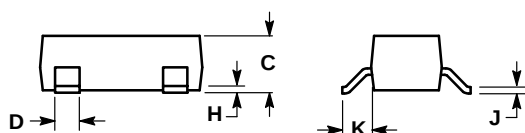
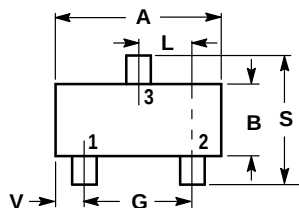


Figure 4. Capacitance

LMBD2835LT1G LMBD2836LT1G

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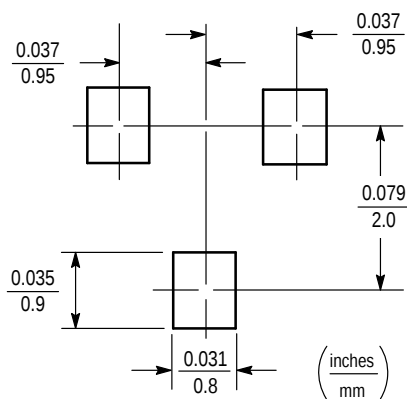


NOTES:

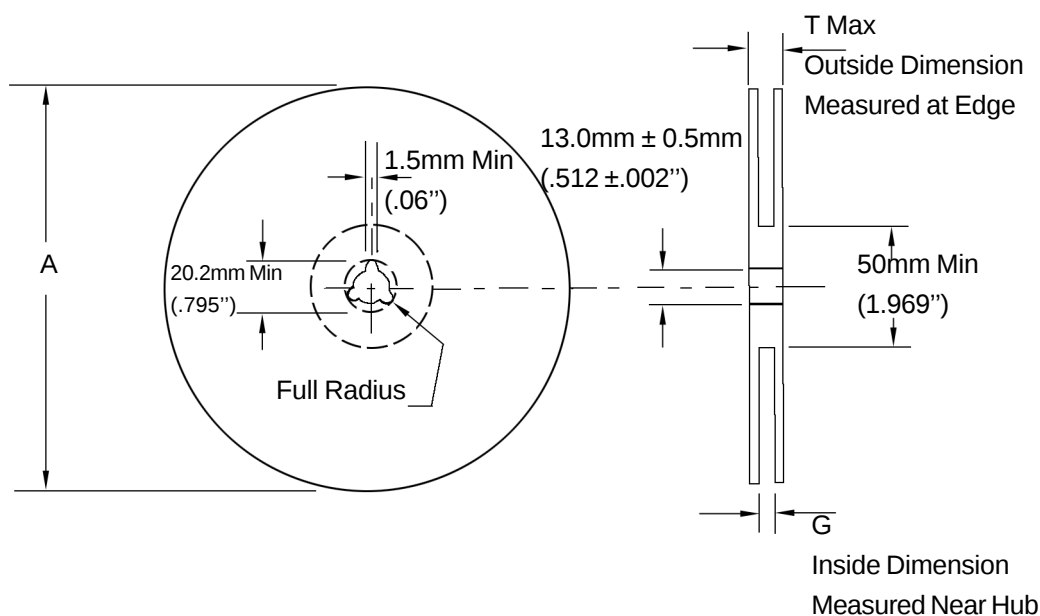
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

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



EMBOSED TAPE AND REEL DATA FOR DISCRETES



Size	A Max	G	T Max
8 mm	330mm (12.992")	8.4mm+1.5mm, -0.0 (.33"+.059", -0.00)	14.4mm (.56")

Reel Dimensions

Metric Dimensions Govern — English are in parentheses for reference only

Storage Conditions

Temperature: 5 to 40 Deg.C (20 to 30 Deg. C is preferred)

Humidity: 30 to 80 RH (40 to 60 is preferred)

Recommended Period: One year after manufacturing

(This recommended period is for the soldering condition only. The characteristics and reliabilities of the products are not restricted to this limitation)

Shipment Specification

