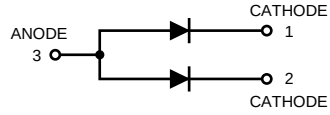
Monolithic Dual Switching Diode

MMBD2836GH

SOT-23



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	LMBD2835LT1G	V_R	35	Vdc
	LMBD2836LT1G		75	
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	$R_{\theta JA}$	556	°C/W
Total Device Dissipation	P_D	300	mW
Alumina Substrate, (2) T_A = 25°C			
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	T_J, T_{stg}	–55 to +150	°C

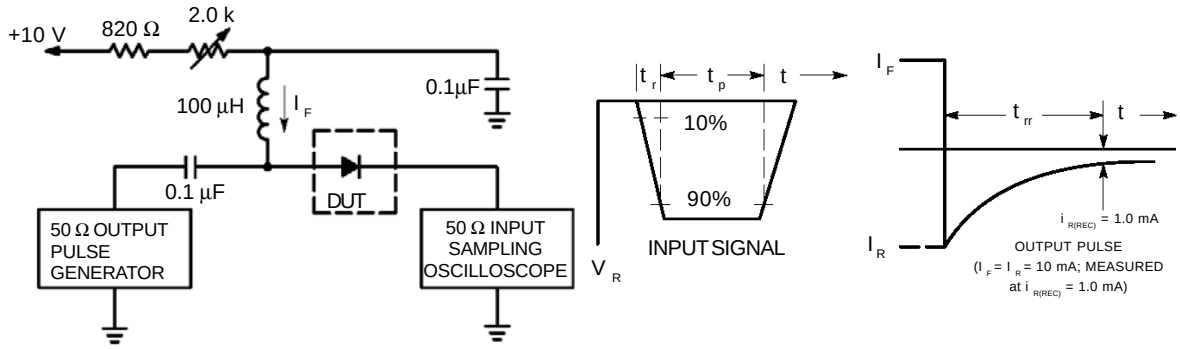
DEVICE MARKING

LMBD2835LT1G = A3X;LMBD2836LT1G=A2X

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

Characteristic		Symbol	Min	Max	Unit
OFF CHARACTERISTICS					
Reverse Breakdown Voltage(I_R = 100 µAdc)	LMBD2835LT1G	$V_{(BR)}$	35	—	Vdc
	LMBD2836LT1G		75	—	
Reverse Voltage Leakage Current		I_R			nAdc
(V_R = 30 Vdc)	LMBD2835LT1G		—	100	
(V_R = 50 Vdc)	LMBD2836LT1G		—	100	
Diode Capacitance (V_R = 0, f = 1.0 MHz)		C_T	—	4.0	pF
Forward Voltage(I_F = 10 mAdc)		V_F	—	1.0	Vdc
(I_F = 50 mAdc)			—	1.0	
(I_F = 100 mAdc)			—	1.2	
Reverse Recovery Time(I_F = I_R = 10 mAdc, $I_{R(REC)}$ = 1.0mAdc) (Figure 1)		t_{rr}	—	4.0	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 10mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH CATHODE

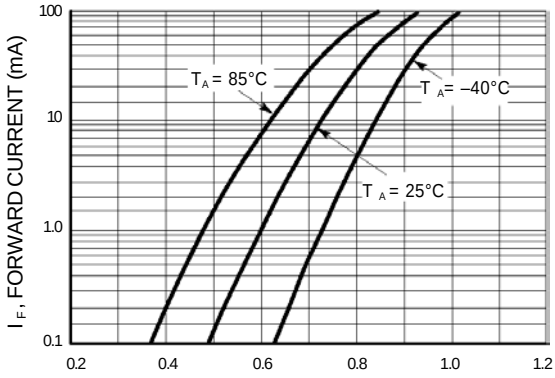


Figure 2. Forward Voltage

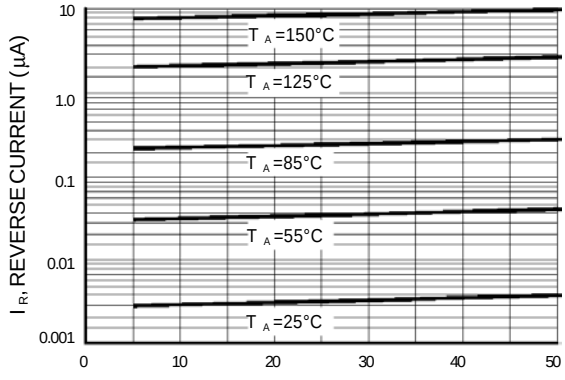


Figure 3. Leakage Current

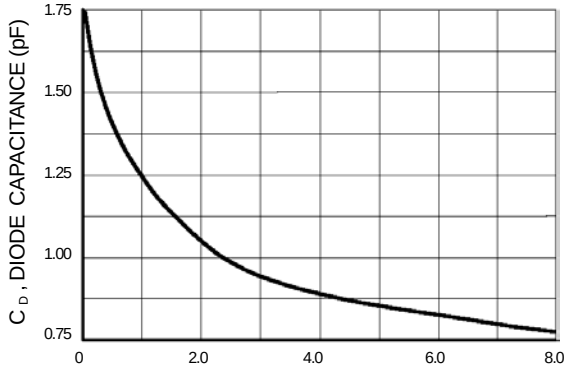


Figure 4. Capacitance