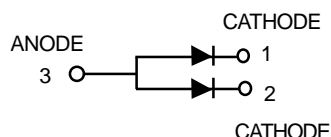
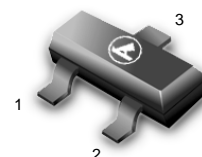


# Monolithic Dual Switching Diodes



**MMBD2835LT1**  
**MMBD2836LT1**



CASE 318-08, STYLE 12  
SOT- 23 (TO-236AB)

## MAXIMUM RATINGS

Rating	Symbol	Value	Unit	
Reverse Voltage	MMBD2835LT1	$V_R$	35	Vdc
	MMBD2836LT1		75	
Forward Current	$I_F$	100	mAdc	

## THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board <sup>(1)</sup> $T_A = 25^\circ\text{C}$	$P_D$	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate, <sup>(2)</sup> $T_A = 25^\circ\text{C}$	$P_D$	300	mW
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

MMBD2835LT1 = A3X; MMBD2836LT1 = A2X

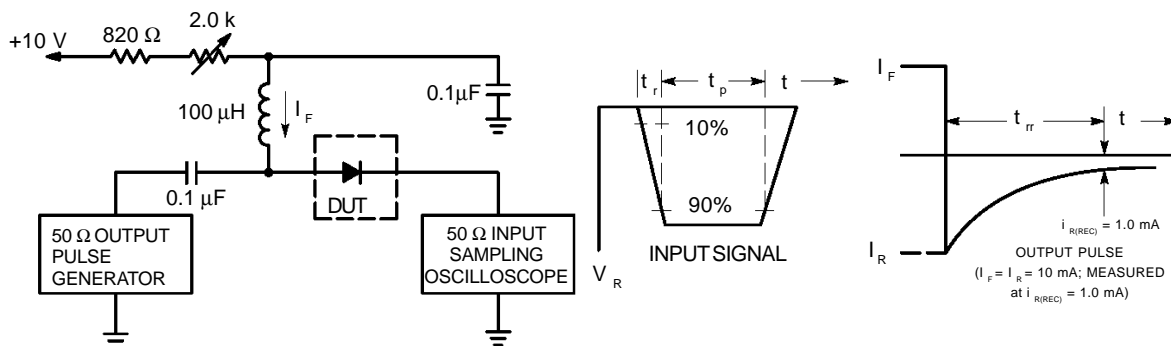
## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Max	Unit	
<b>OFF CHARACTERISTICS</b>					
Reverse Breakdown Voltage ( $I_R = 100 \mu\text{Adc}$ )	MMBD2835LT1	$V_{(BR)}$	35	—	Vdc
	MMBD2836LT1		75	—	
Reverse Voltage Leakage Current ( $V_R = 30 \text{ Vdc}$ )	MMBD2835LT1	$I_R$	—	100	nAdc
( $V_R = 50 \text{ Vdc}$ )	MMBD2836LT1		—	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 x 0.75 x 0.062 in.

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

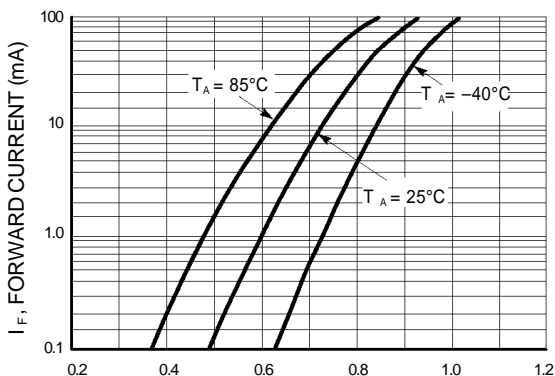
MMBD2835LT1 MMBD2836LT1



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

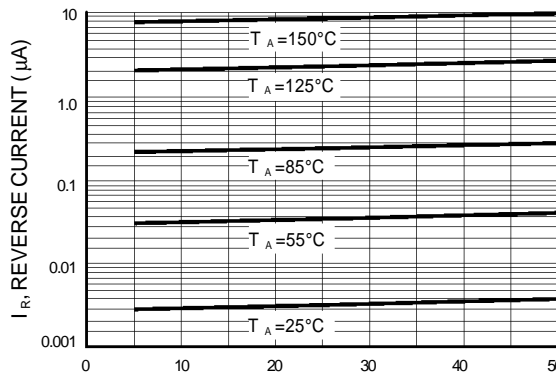
Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH CATHODE



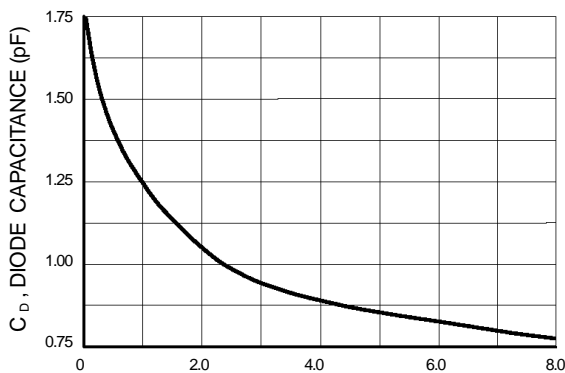
$V_F$ , FORWARD VOLTAGE (VOLTS)

Figure 2. Forward Voltage



$V_R$ , REVERSE VOLTAGE (VOLTS)

Figure 3. Leakage Current



$V_R$ , REVERSE VOLTAGE (VOLTS)

Figure 4. Capacitance