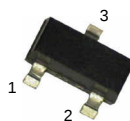
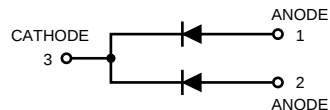


Monolithic Dual Switching Diode

MMBD2837



SOT-23



MAXIMUM RATINGS

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

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Total Device Dissipation FR-5 Board ⁽¹⁾ $T_A=25^{\circ}C$ Derate above $25^{\circ}C$	P_D	225 1.8	mW mW / $^{\circ}C$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}C / W$
Total Device Dissipation Alumina Substrate, ⁽²⁾ $T_A=25^{\circ}C$ Derate above $25^{\circ}C$	P_D	300 2.4	mW mW / $^{\circ}C$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^{\circ}C / W$
Junction and Storage Temperature	T_J, T_{STG}	-55 to +150	$^{\circ}C$

DEVICE MARKING

MMBD2837=A5

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

Characteristic	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage ($I_{BR}=100 \mu A_{dc}$)	$V_{(BR)}$	35	-	Vdc
Forward Voltage ($I_F=10 \text{ mAdc}$) ($I_F=50 \text{ mAdc}$) ($I_F=100 \text{ mAdc}$)	V_F	- - -	1000 1000 1200	mVdc
Reverse Voltage Leakage Current ($V_R=30 \text{ Vdc}$)	I_R	- -	0.1	μA_{dc}
Diode Capacitance ($V_R=0$, $f=1.0 \text{ MHz}$)	C_J	-	4.0	pF
Reverse Recovery Time ($I_F=I_R=10 \text{ mAdc}$, $I_R(\text{REC})=1.0 \text{ mAdc}$, measured at $I_R=1.0 \text{ mA}$ $R_L=100 \Omega$)	t_{rr}	-	4.0	nS

(1) FR-5=1.0 x 0.75 x 0.062in.

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

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT

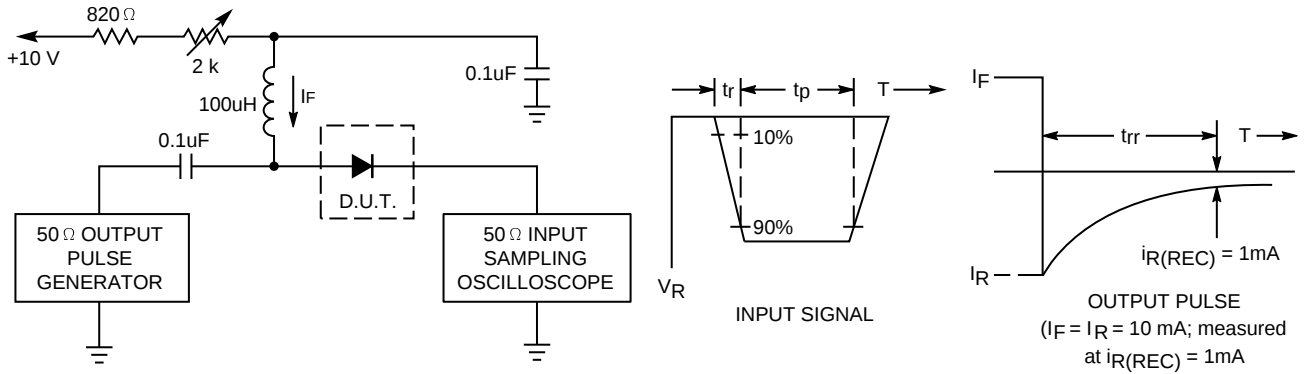


FIGURE 2. FORWARD VOLTAGE

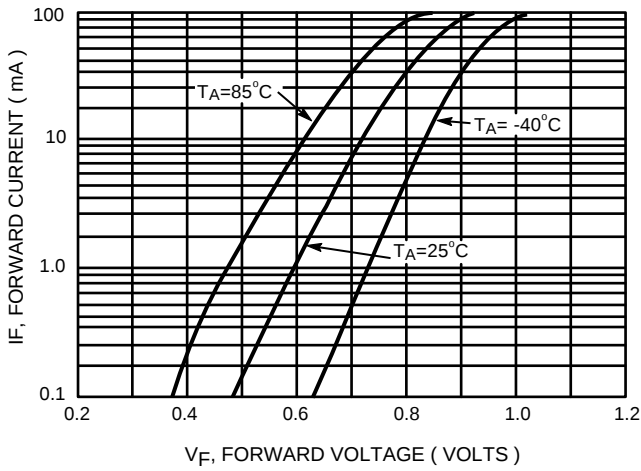


FIGURE 3. LEAKAGE CURRENT

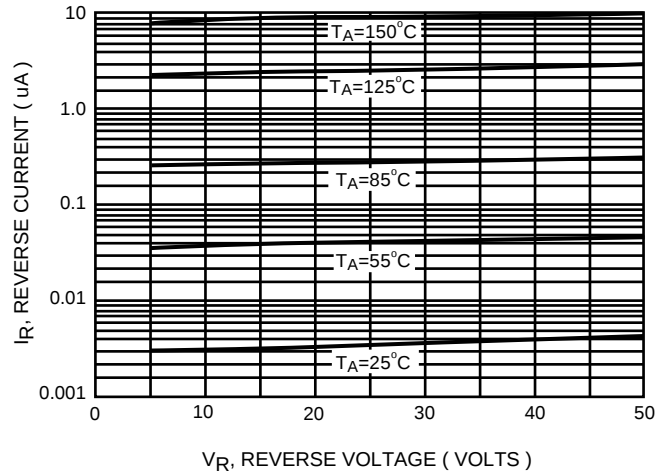


FIGURE 4. CAPACITANCE

