

Features

- RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"
- Moisture Sensitivity Level 1

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	100	Vdc
Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

THERMAL CHARACTERISTICS

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

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

Characteristic	Symbol	Min	Max	Unit
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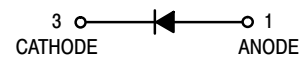
OFF CHARACTERISTICS

Reverse Breakdown Voltage ($I_R = 100 \mu\text{Adc}$)	$V_{(BR)}$	100	–	Vdc
Reverse Voltage Leakage Current ($V_R = 20 \text{Vdc}$) ($V_R = 75 \text{Vdc}$)	I_R	–	25 5.0	nAdc μAdc
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
Reverse Recovery Time ($I_F = I_R = 10 \text{mAdc}$) (Figure 1)	t_{rr}	–	4.0	ns

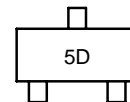
1. FR-5 = $1.0 \times 0.75 \times 0.062$ in.
2. Alumina = $0.4 \times 0.3 \times 0.024$ in. 99.5% alumina.



SOT-23



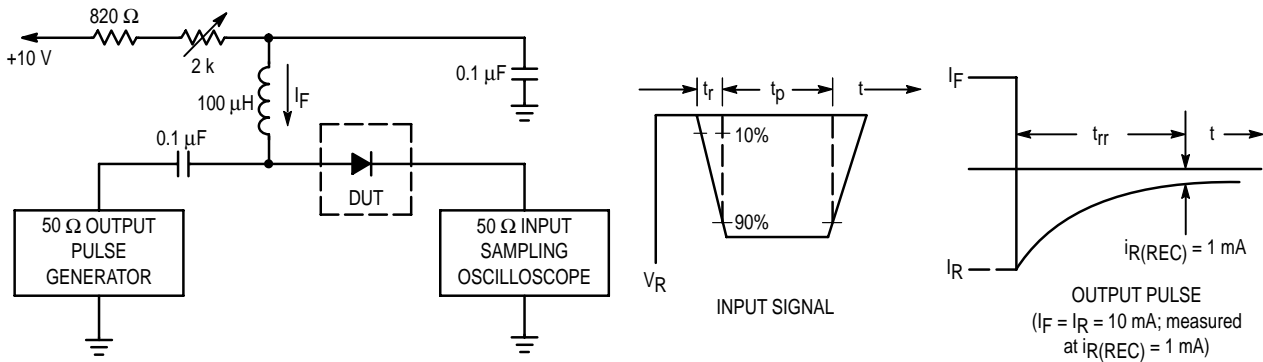
MARKING DIAGRAM



5D = Device Code

ORDERING INFORMATION

Device	Package	Shipping
MMBD914LT1	SOT-23	3000/Tape & Reel



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

Figure 1. Recovery Time Equivalent Test Circuit

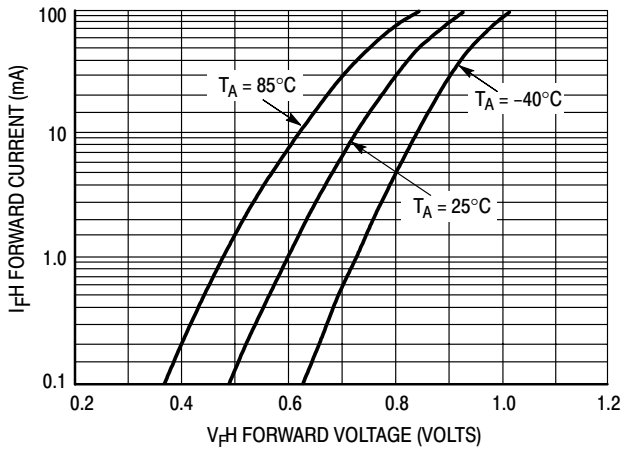


Figure 2. Forward Voltage

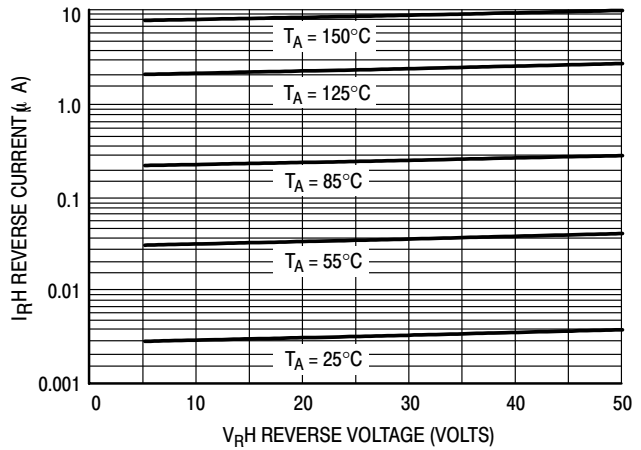


Figure 3. Leakage Current

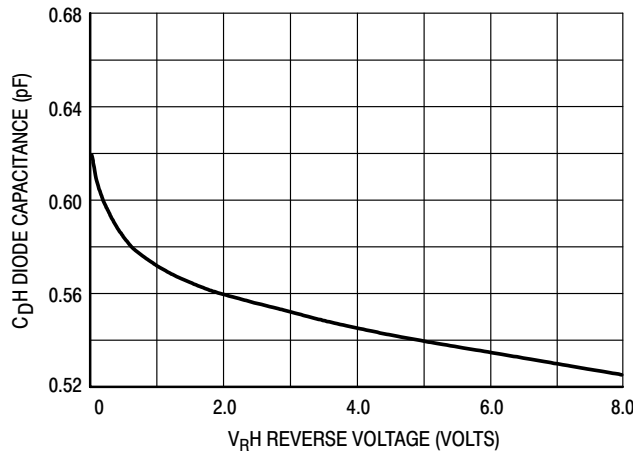
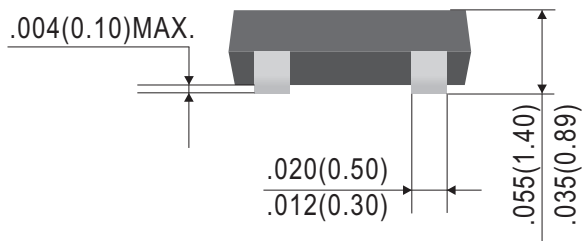
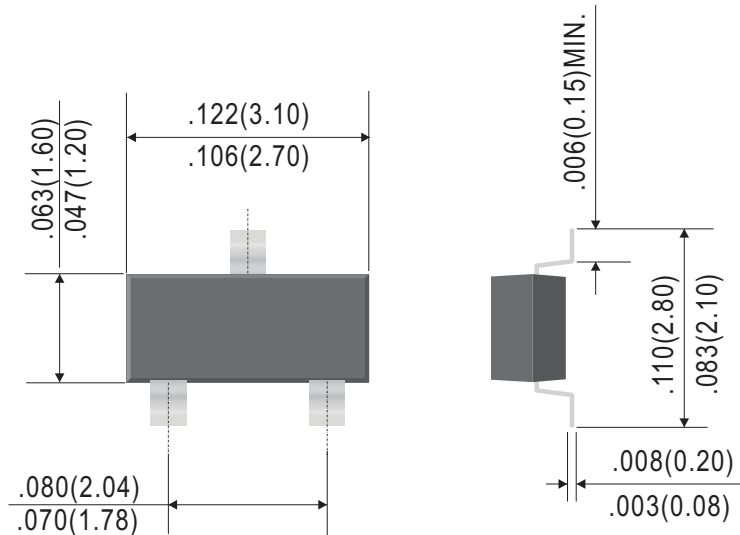


Figure 4. Capacitance

SOT-23



Dimensions in inches and (millimeters)

