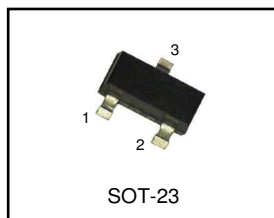


High-Speed Switching Diode

Lead free product

MMBD914G



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	VR	100	Vdc
Peak Forward Current	IF	200	mAdc
Peak Forward Surge Current	IFM(surge)	500	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Total Device Dissipation FR-5 Board ⁽¹⁾ TA=25°C Derate above 25°C	PD	225 1.8	mW mW / °C
Thermal Resistance, Junction to Ambient	RθJA	556	°C / W
Total Device Dissipation Alumina Substrate, ⁽²⁾ TA=25°C Derate above 25°C	PD	300 2.4	mW mW / °C
Thermal Resistance, Junction to Ambient	RθJA	417	°C / W
Junction and Storage Temperature	TJ,TSTG	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Characteristic	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage (IBR=100 uAdc)		V(BR)	100	-	Vdc
Forward Voltage (IF=10 mAdc)		VF	-	1000	mVdc
Reverse Voltage Leakage Current	(VR=20 Vdc)	IR	-	0.025	uAdc
	(VR=75 Vdc)		-	5.0	
Diode Capacitance (VR=0, f=1.0MHz)		CJ	-	4.0	pF
Reverse Recovery Time (IF=IR=10 mAdc, IR(REC)=1.0mAdc, measured at IR=1.0mA RL=100 Ω)		trr	-	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

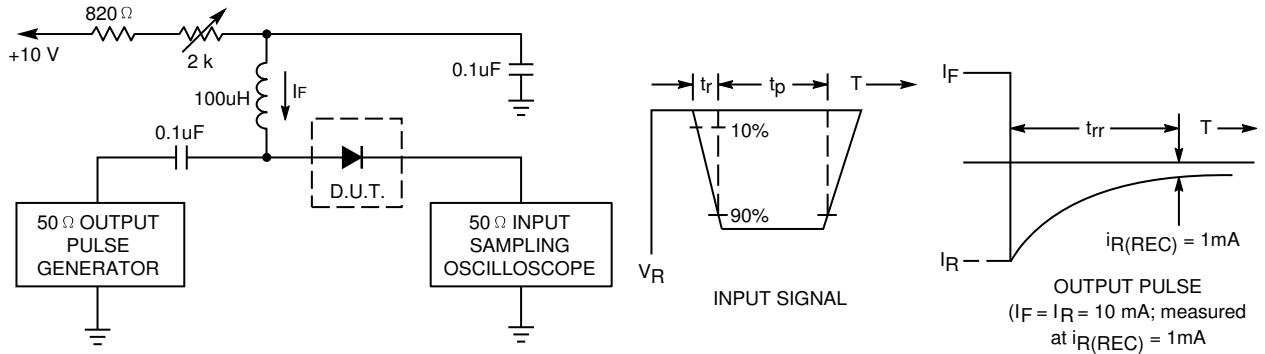


FIGURE 2. FORWARD VOLTAGE

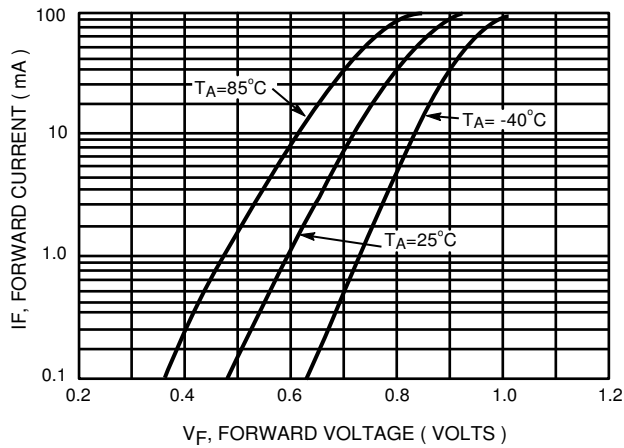


FIGURE 3. LEAKAGE CURRENT

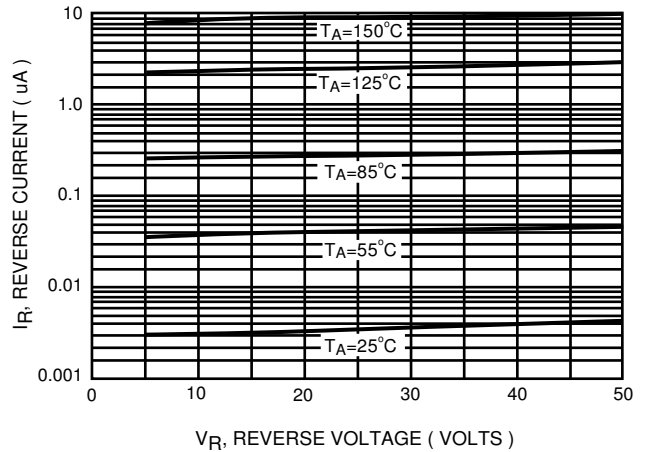


FIGURE 4. CAPACITANCE

