

## High-Speed Switching Diode

### Lead free product

**MMDL914T1G**



CATHODE 1      ANODE 2



#### 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, TA=25°C Derate above 25°C	PD	200 1.57	mW mW / °C
Thermal Resistance, Junction to Ambient	R $\theta$ JA	635	°C / W
Junction and Storage Temperature	TJ,TSTG	150	°C

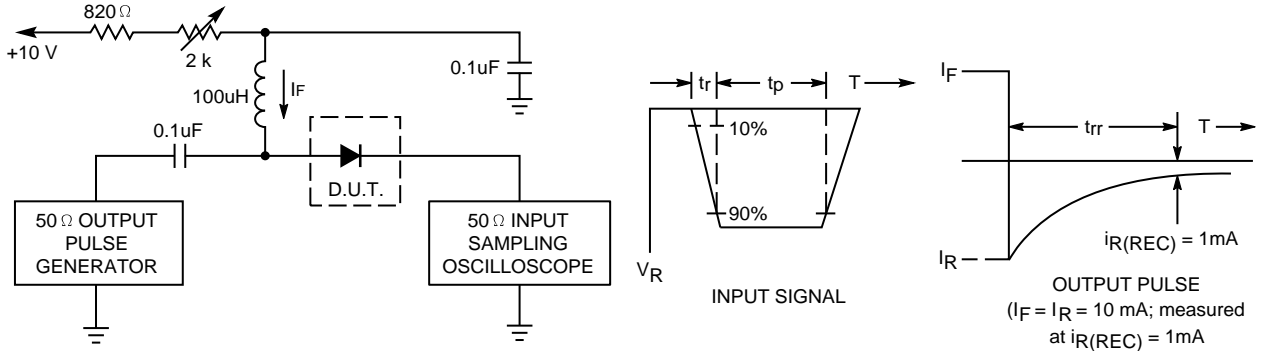
#### ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Characteristic	Symbol	Min.	Max.	Unit
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#### OFF CHARACTERISTICS

Reverse Breakdown Voltage ( I <sub>BR</sub> =100uAdc )	V(BR)	100	-	Vdc
Reverse Voltage Leakage Current	IR	-	( VR=50 Vdc ) 25	uAdc
			( VR=75 Vdc ) 5.0	uAdc
Forward Voltage	VF	-	1.0	Vdc
Junction Capacitance ( VR=0, f=1.0MHZ )	CJ	-	4.0	pF
Reverse Recovery Time ( IF=10 mAdc, IR(REC) = 1.0mAdc )	trr	-	4.0	nS

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



- 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 2. FORWARD VOLTAGE

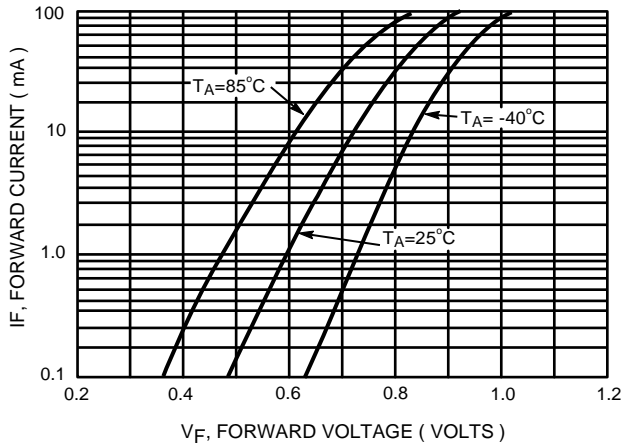


FIGURE 3. LEAKAGE CURRENT

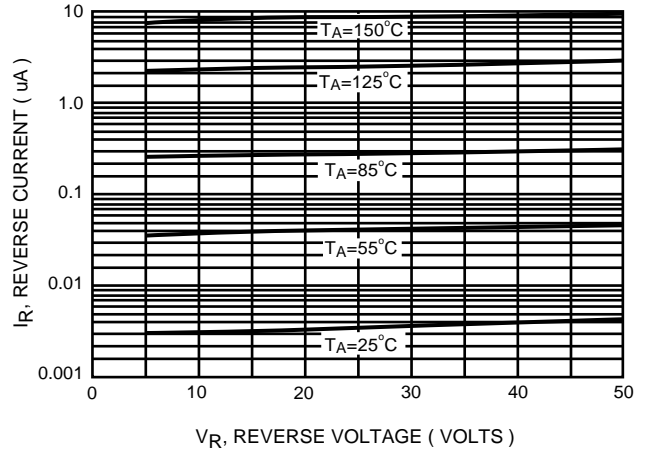


FIGURE 4. CAPACITANCE

