

# MMDL914

## High Speed Switching Diode

### Features

- Fast Switching Speed
- Low Current Leakage
- Compression Bond Construction
- Surface Mount Application
- Device Marking: MMDL914 = 5D
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

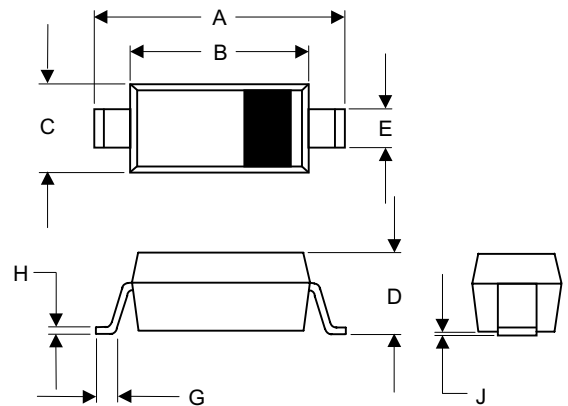
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 635°C/W Junction To Ambient

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	$V_R$	100V	
Minimum Breakdown Voltage	$V_{(BR)}$	100V	$I_R = 100\mu A$
Forward Current	$I_F$	200mA	
Total Device Dissipation FR-5 Board Derate above 25°C	$P_D$	200mW 1.57mW/°C	
Junction Temperature	$T_J$	150°C	
Peak Forward Surge Current	$I_{FSM}$	500mA	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 10mA$ ; $T_J = 25^\circ C^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA 0.5μA	$V_R=20Volts$ $V_R=75Volts$ $T_J = 25^\circ C$
Maximum Junction Capacitance	$C_J$	4pF	Measured at 1.0MHz, $V_R=0V$
Maximum Reverse Recovery Time	$T_{rr}$	4nS	$I_F=10mA$ $V_R = 6V$ $R_L=100\Omega$

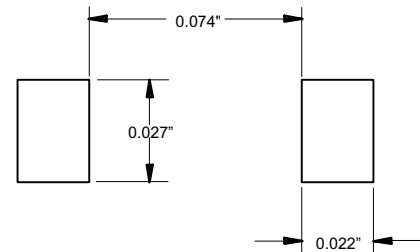
\*Pulse test: Pulse width 300 μsec, Duty cycle 2%

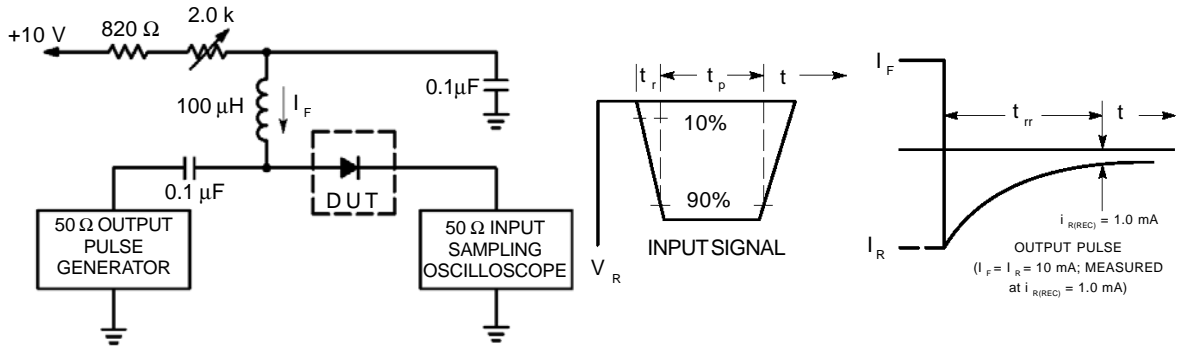
### SOD323



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

### SUGGESTED SOLDER PAD LAYOUT





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

Figure 1. Recovery Time Equivalent Test Circuit

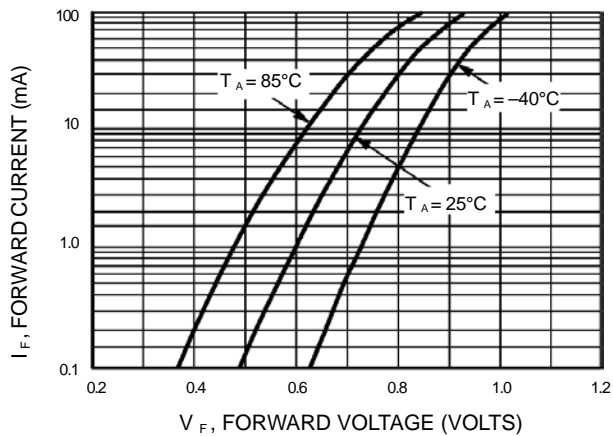


Figure 2. Forward Voltage

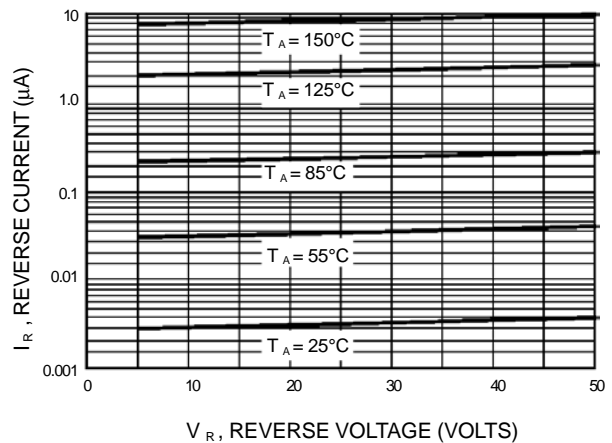


Figure 3. Leakage Current

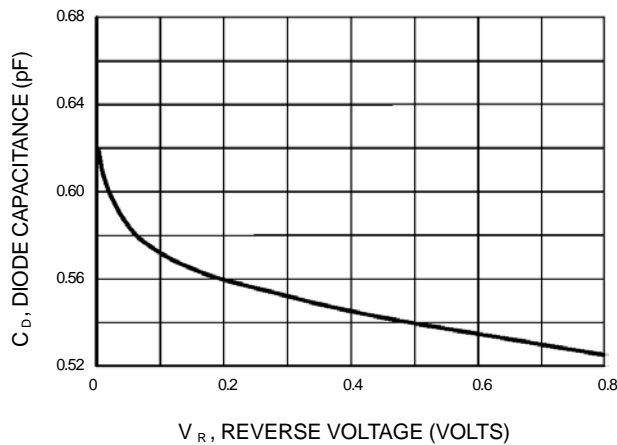


Figure 4. Capacitance



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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