Micro Commercial Components
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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

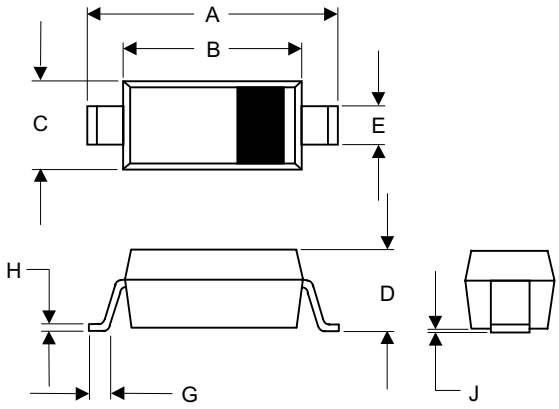
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 635°C/W Junction To Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V_R	100V	
Minimum Breakdown Voltage	$V_{(BR)}$	100V	I_R = 100μA
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°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 0.5μA	V_R=20Volts V_R=75Volts T_J = 25°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=100Ω

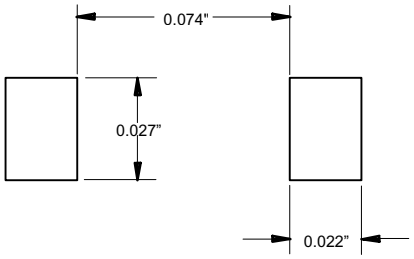
*Pulse test: Pulse width 300 μsec, Duty cycle 2%

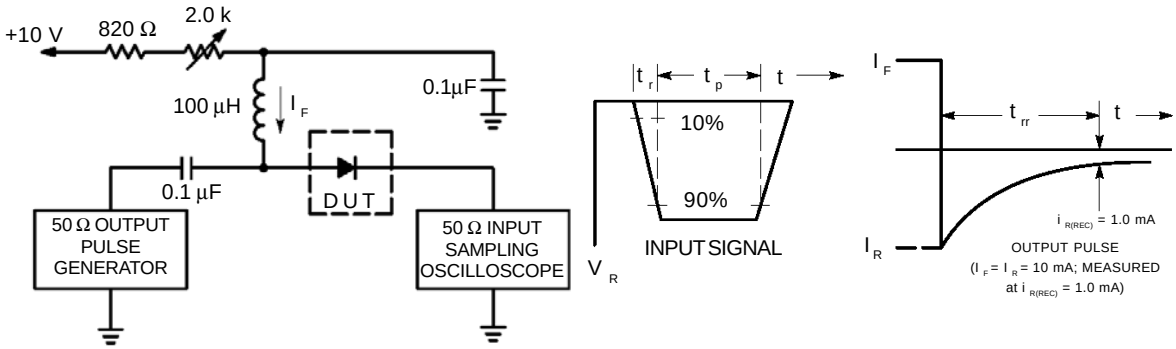
SOD323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	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

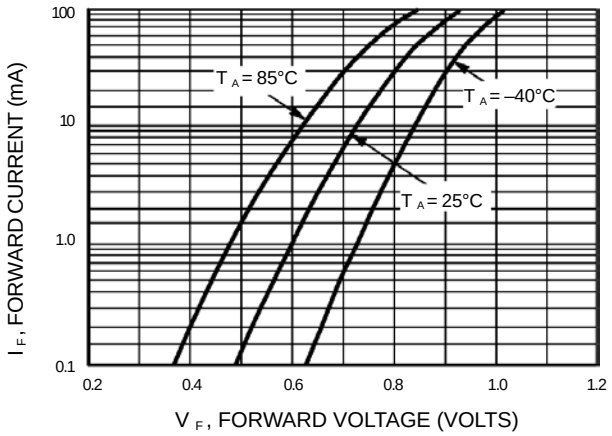


Figure 2. Forward Voltage

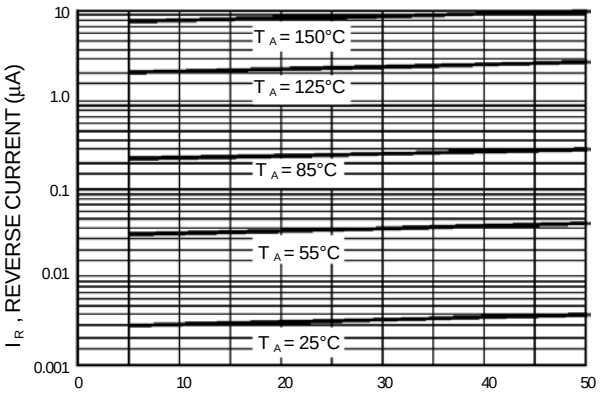


Figure 3. Leakage Current

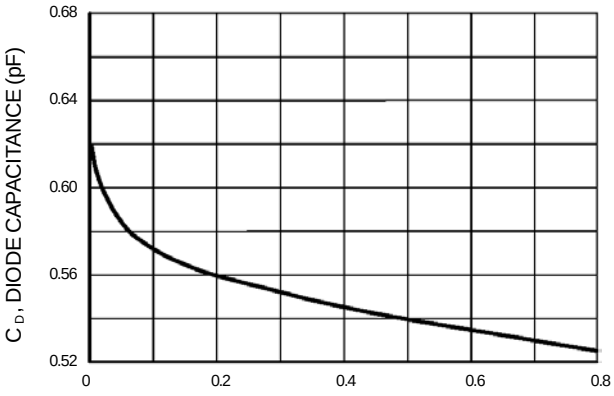


Figure 4. Capacitance

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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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