



## Features

- Compact Surface Mount With Same Footprint as Minimelf
- High Breakdown Voltage, Fast Switching Speed
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS ~~Compliant~~ Compliant. See Ordering Information)

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 312.5°C/W Junction to Ambient

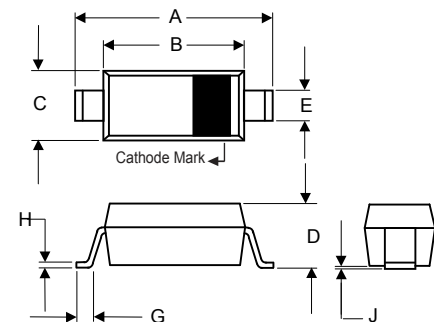
MCC Part Number	Device Marking
MMSD914	5D

Parameter	Symbol	Value
Working Inverse Voltage	$V_{RWM}$	75V
Forward Continuous Current	$I_{FM}$	600mA
Average Forward Current	$I_{F(AV)}$	200mA
Repetitive Peak Forward Current	$I_{FRM}$	625mA
Peak Forward Surge Current (t=1s) (t=1μs)	$I_{FSM}$	1A 2A
Power Dissipation	$P_D$	400mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

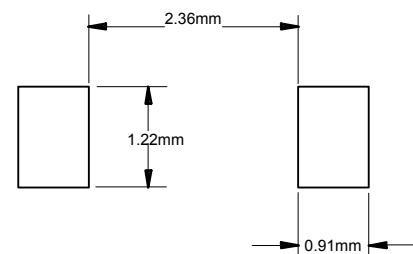
# 400mW Fast Switching Diode

## SOD-123



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

### Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{BR}$	$I_R=100\mu A$	100			V
		$I_R=5\mu A$	75			V
Forward Voltage	$V_F$	$I_F=10mA$			1	V
Reverse Current	$I_R$	$V_R=20V$			25	nA
		$V_R=75V$			2.5	$\mu A$
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$			4	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=30mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			4	ns

\* Pulse Test: Pulse Width 300  $\mu sec$ , Duty Cycle 2%

**Curve Characteristics**

Fig. 1 - Typical Instantaneous Forward Characteristics

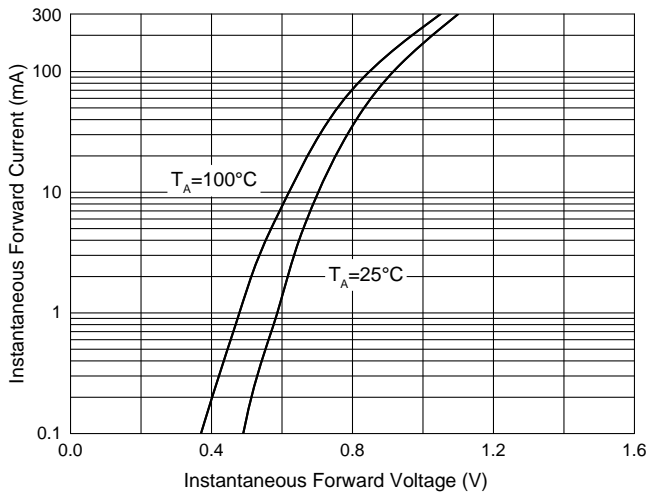


Fig. 2 - Typical Reverse Leakage Characteristics

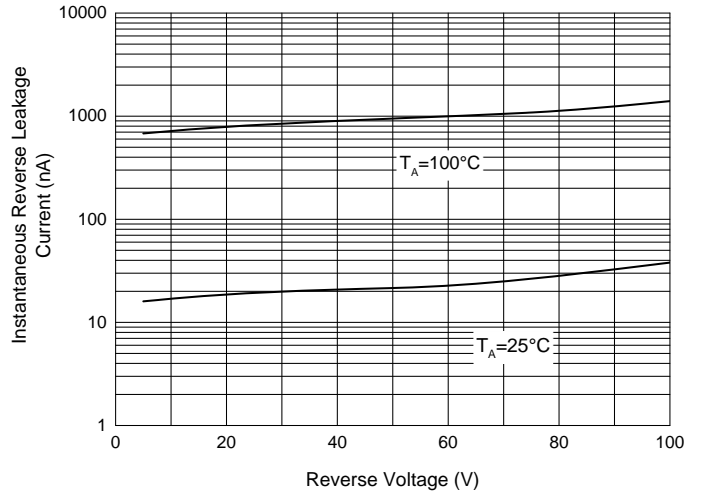
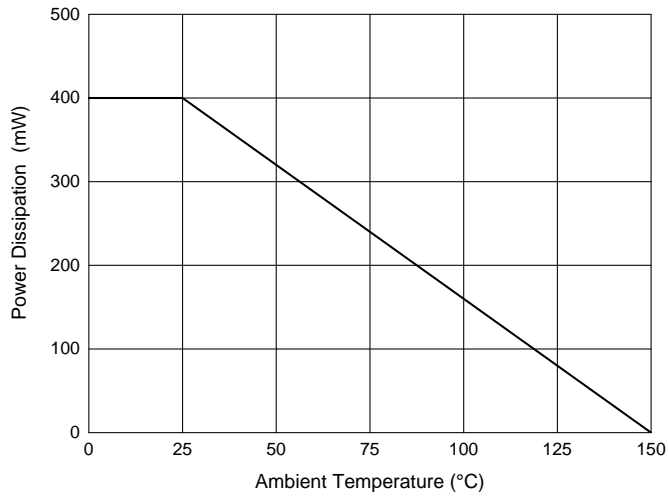


Fig. 3 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel
Part Number-13P	Tape&Reel: 10Kpcs/Reel

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