



**THE DATASHEET OF
1N4148WHE3-TP**



Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 312.5°C/W Junction To Ambient (Note2)

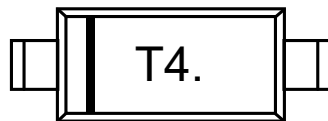
MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
1N4148WHE3	100V	71V	100V

Parameter	Symbol	Value
Average Rectified Current	$I_{F(AV)}$	150mA
Peak Forward Surge Current	$t=1s$	1A
	$t=1\mu s$	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.

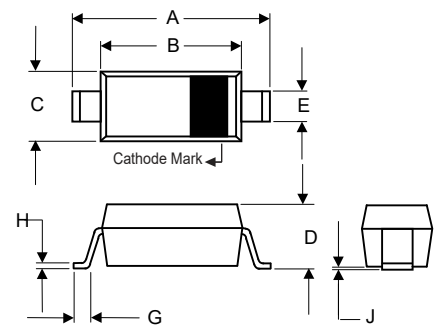
2. Valid Provided that Terminals are Kept at Ambient Temperature.

Internal Structure and Marking Code



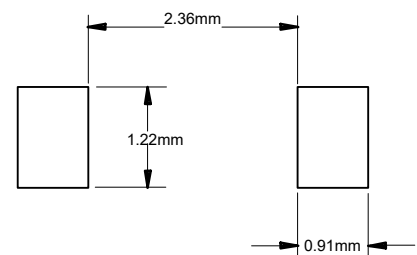
**400mW
High Speed
Switching Diode**

SOD-123



DIM	INCHES		MM		NOTE
	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
Forward Voltage	V_F	$I_F=1mA$			0.715	V
		$I_F=10mA$			0.855	V
		$I_F=50mA$			1	V
		$I_F=150mA$			1.25	V
Reverse Current	I_R	$V_R=75V$			1	μA
		$V_R=20V$			0.025	μA
		$V_R=75V, T_J=150^\circ C$			50	μA
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$			2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA,$ $I_{tr}=0.1*I_R, R_L=100\Omega$			4	ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

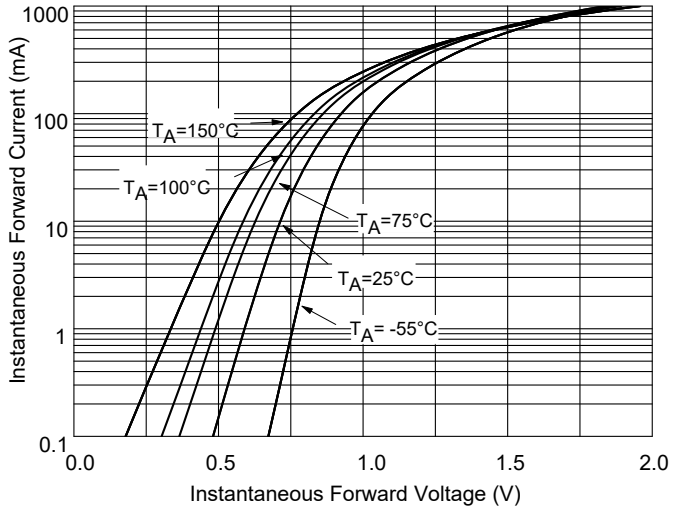


Fig. 2 - Typical Reverse Leakage Characteristics

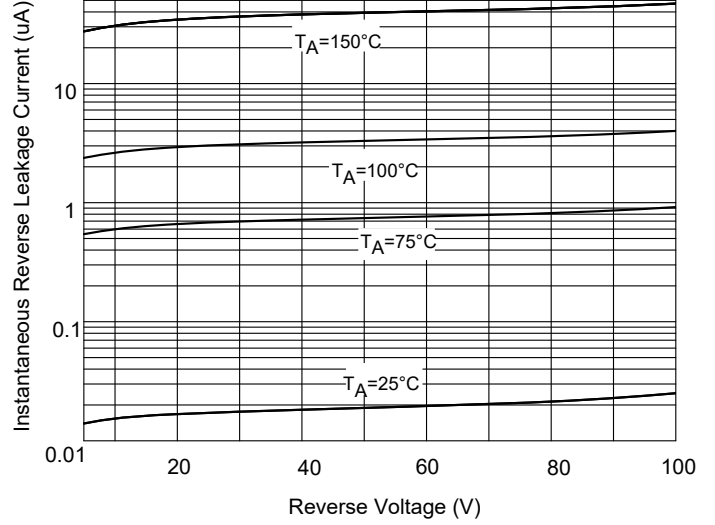


Fig. 3 - Capacitance Characteristics

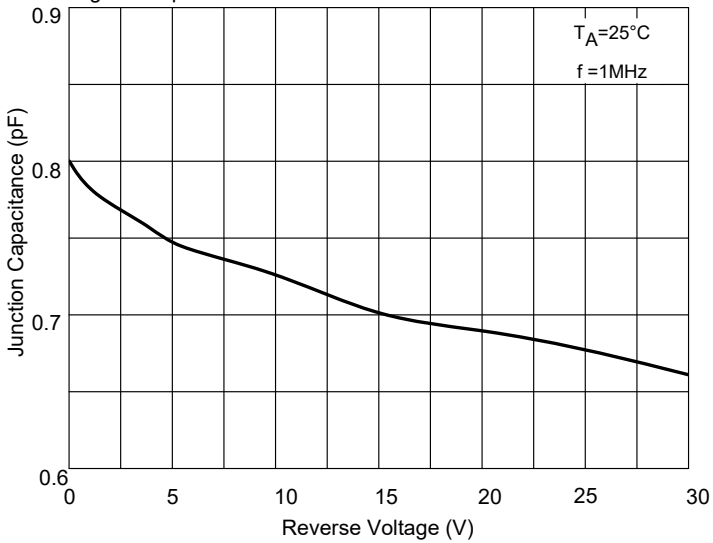
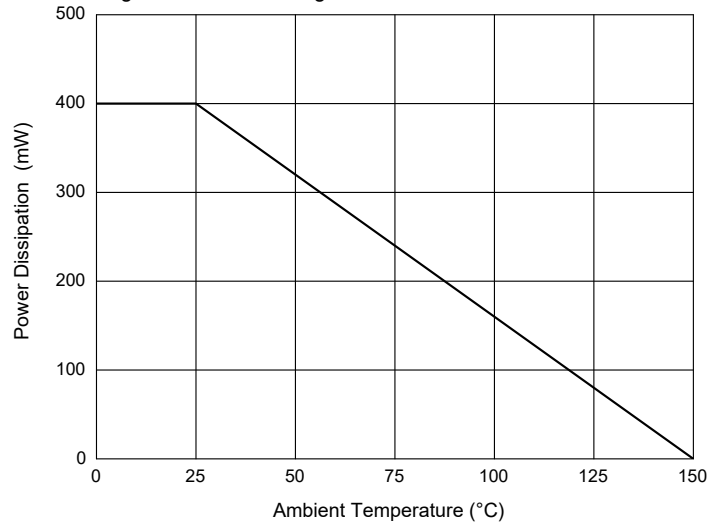


Fig. 4 - Power Derating Curve



Ordering Information

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

For packaging details, go to our website at <https://www.mccsemi.com/pdf/ProductPackaging/SOD-123%20Package.pdf>

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