

**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**

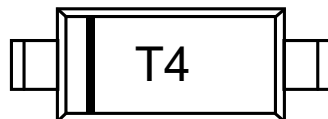
- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 312.5°C/W Junction To Ambient Note2

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

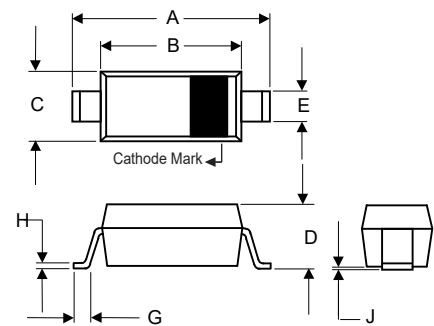
Note 1: Halogen free (total chlorine <900ppm, total bromine <1500ppm, total antimony <1000ppm).  
 2: V<sub>JE</sub> = 100°C/W, V<sub>JA</sub> = 312.5°C/W

**Internal Structure and Marking Code**



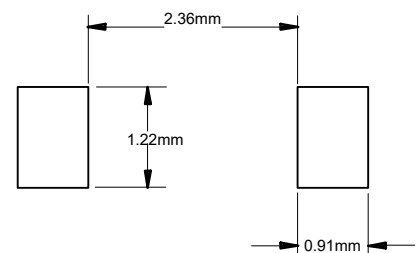
**400mW  
High Speed  
Switching Diode**

**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
Forward Voltage	$V_F$	$I_F=1\text{mA}$			0.715	V
		$I_F=10\text{mA}$			0.855	V
		$I_F=50\text{mA}$			1	V
		$I_F=150\text{mA}$			1.25	V
Reverse Current	$I_R$	$V_R=75\text{V}$			1	$\mu\text{A}$
		$V_R=20\text{V}$			0.025	$\mu\text{A}$
		$V_R=75\text{V}, T_J=150^\circ\text{C}$			50	$\mu\text{A}$
Total Capacitance	$C_T$	$V_R = 0\text{V}, f = 1\text{MHz}$			2	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10\text{mA},$ $I_{rr}=0.1*I_R, R_L=100\Omega$			4	ns

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

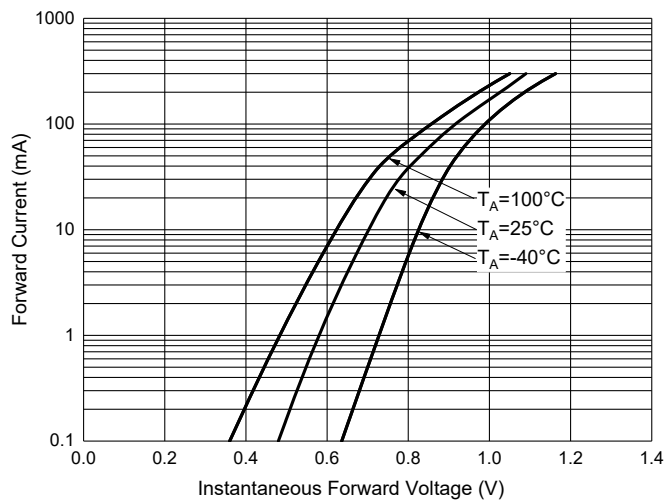


Fig. 2 - Typical Reverse Leakage Characteristics

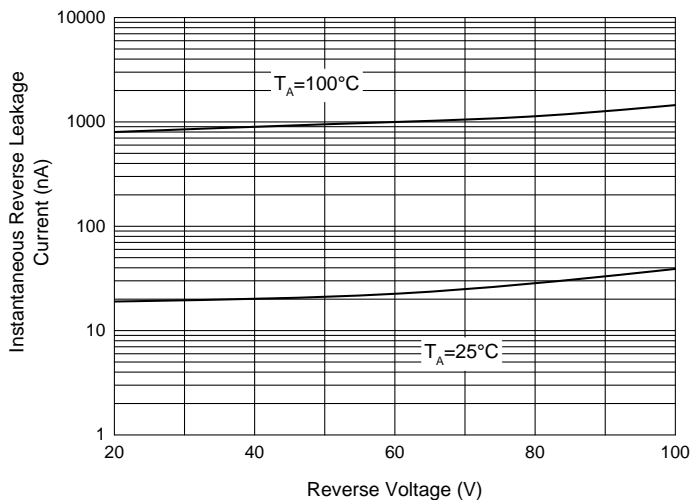
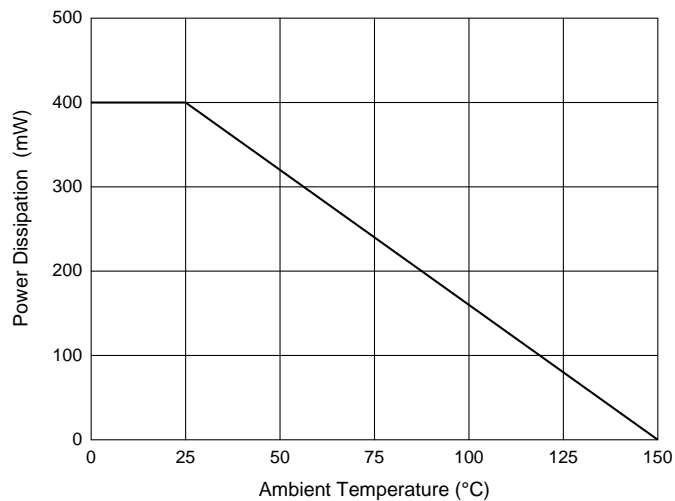


Fig. 3 - Power Derating Curve



## Ordering Information

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

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