

## Features

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

## Maximum Ratings

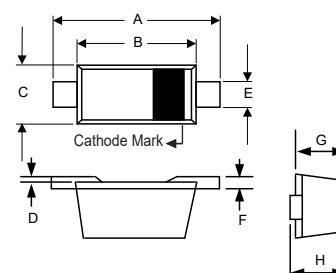
- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

MCC Part Number	Device Marking
1N4148XHE3	T4

Parameter	Symbol	Value
DC Reverse Voltage	$V_R$	100V
Working Peak Reverse Voltage	$V_{RWM}$	100V
RMS Reverse Voltage	$V_{R(RMS)}$	71V
Forward Continuous Current	$I_{FM}$	300mA
Average Rectified Output Current	$I_O$	150mA
Peak Forward Surge Current (t=1μs)	$I_{FSM}$	2A
(t=1s)		1A
Power Dissipation	$P_D$	200mW

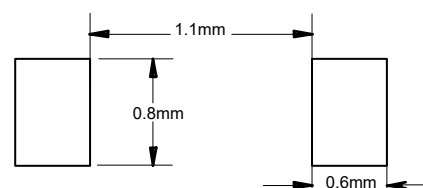
# 200mW Switching Diodes

## SOD-523



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.043	0.051	1.10	1.30	
C	0.030	0.033	0.75	0.85	
D	0.000	0.003	0.00	0.07	
E	0.010	0.014	0.25	0.35	
F	0.003	0.008	0.08	0.20	
G	0.020	0.026	0.50	0.65	
H	0.020	0.026	0.50	0.65	

### 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	$I_R$	$V_R=20\text{V}, T_J=25^\circ\text{C}$			25	nA
		$V_R=75\text{V}, T_J=25^\circ\text{C}$			1	$\mu\text{A}$
		$V_R=75\text{V}, T_J=150^\circ\text{C}$			50	$\mu\text{A}$
Junction Capacitance	$C_J$	$V_R = 0\text{V}, f = 1\text{MHz}$			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

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

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

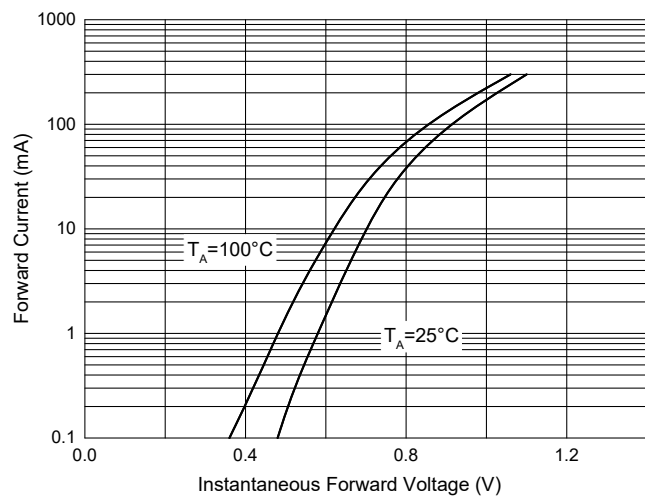


Fig. 2 - Typical Reverse Leakage Characteristics

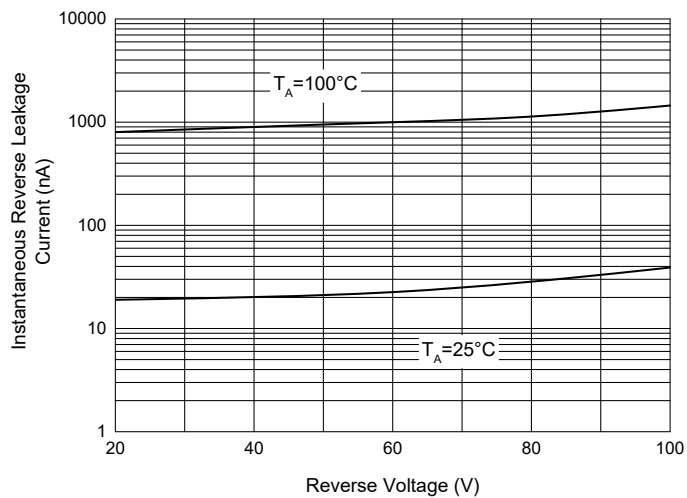
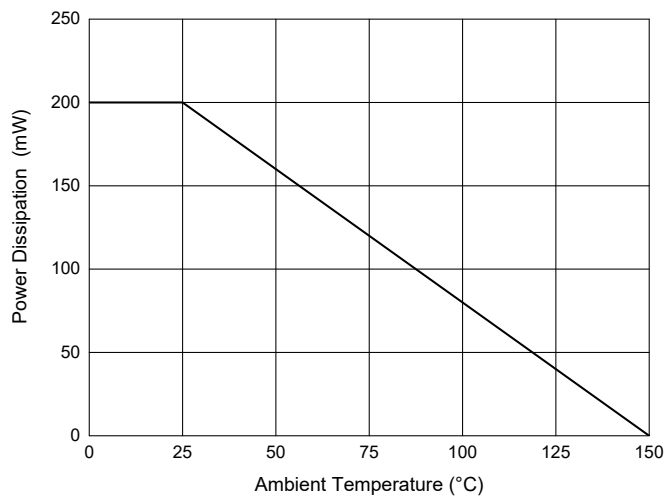


Fig. 3 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

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