

400mW SOD-123 SURFACE MOUNT

Small Outline Flat Lead Plastic Package

General Purpose Application

Fast Switching Diode

Green Product


SOD-123 Flat Lead


ELECTRICAL SYMBOL
Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	400	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+150	$^\circ\text{C}$
V_{RSM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM}	Repetitive Peak Reverse Voltage	75	V
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_O	Continuous Forward Current	150	mA
I_{FSM}	Peak Forward Surge Current (Pulse Width=1us)	2	A

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

- Fast Switching Device ($T_{RR} < 4.0$ nS)
- General Purpose Diodes
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODE:

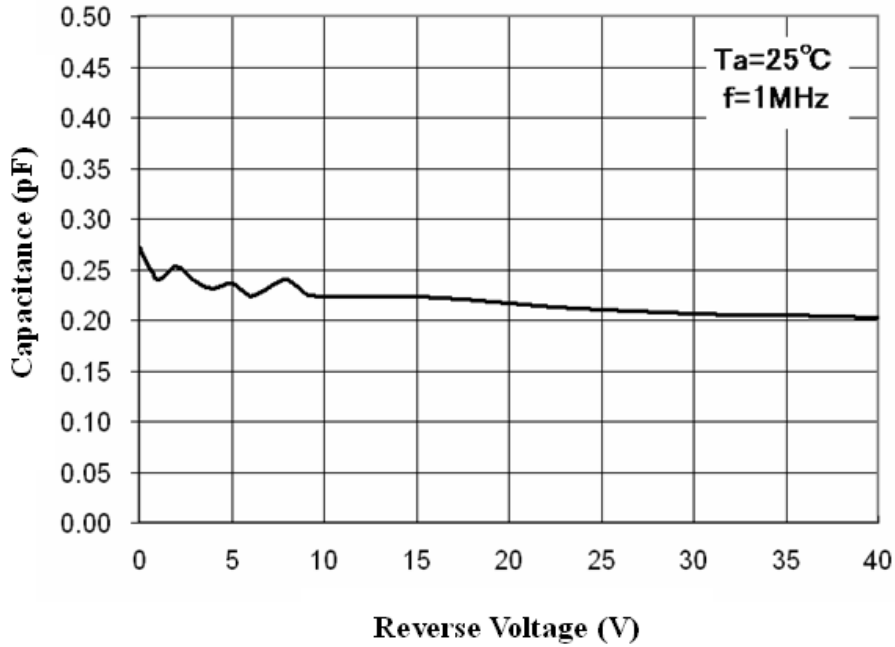
Device Type	Device Marking
1N4148W	D1
1N4448W	D2
1N914BW	D3

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

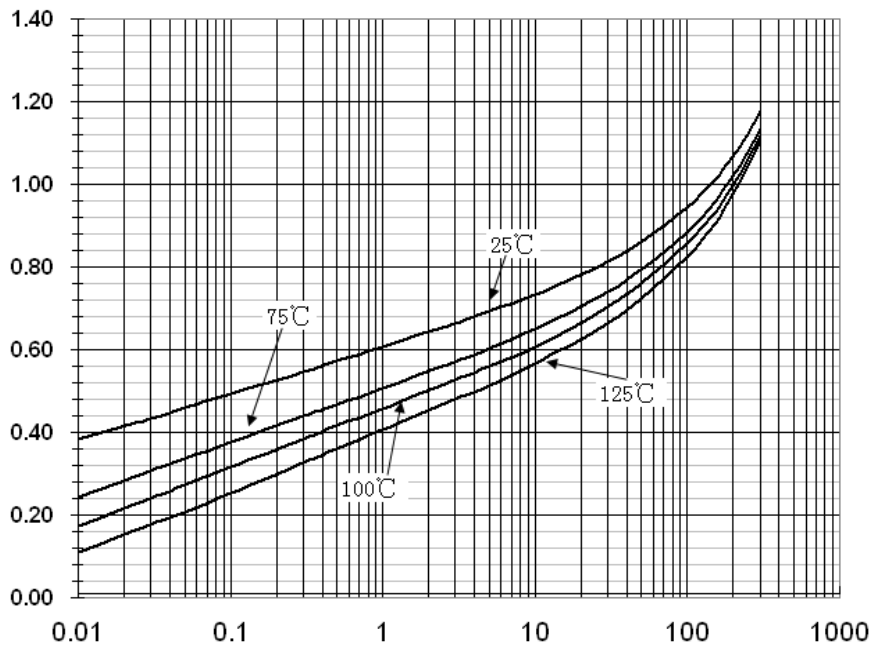
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R=100\mu\text{A}$	100		Volts
		$I_R=5\mu\text{A}$	75		
I_R	Reverse Leakage Current	$V_R=20\text{V}$		25	nA
		$V_R=75\text{V}$		5	μA
V_F	Forward Voltage	1N4448W, 1N914BW $I_F=5\text{mA}$	0.62	0.72	Volts
		1N4148W $I_F=10\text{mA}$		1.0	
		1N4448W, 1N914BW $I_F=100\text{mA}$		1.0	
T_{RR}	Reverse Recovery Time	$I_F=10\text{mA}$ $I_R=60\text{mA}$ $R_L=100\Omega$ $I_{RR}=1\text{mA}$		4	nS
C	Capacitance	$V_R=0\text{V}$, $f=1\text{MHz}$		4	pF

Typical Performance Characteristics

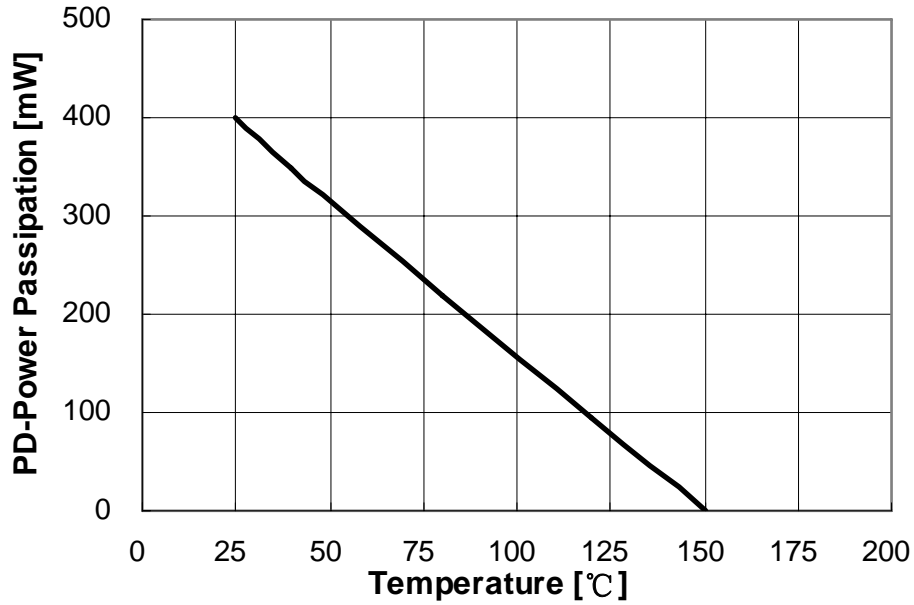
Total Capacitance



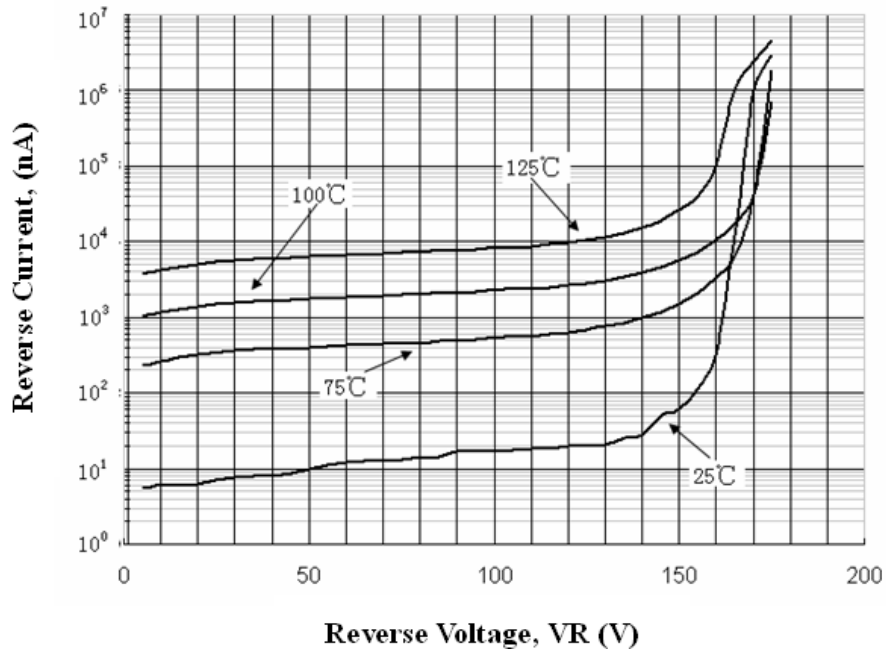
Forward Voltage vs Ambient Temperature



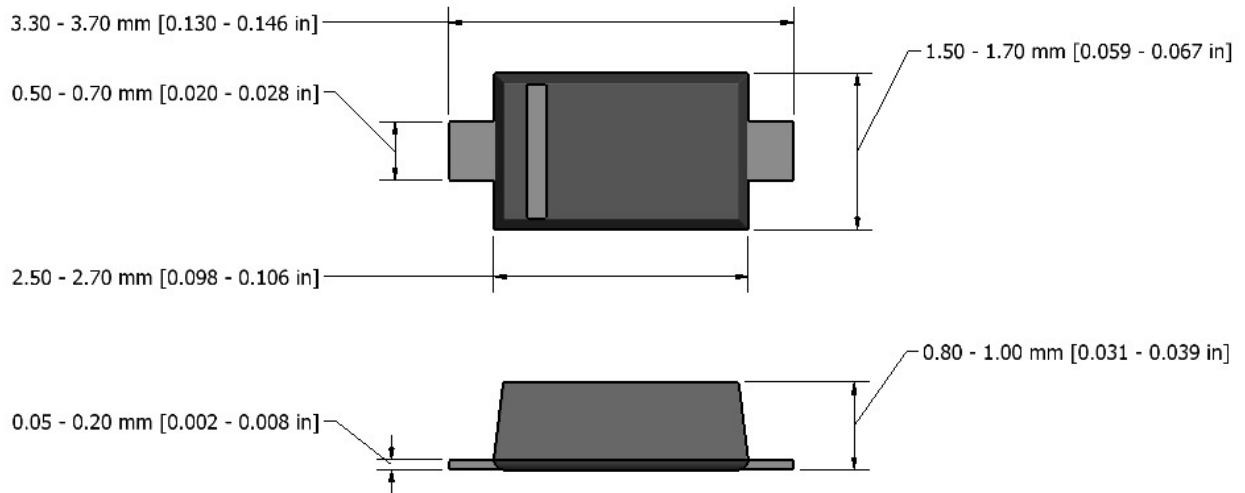
Power Derating Curve



Reverse Current vs Reverse Voltage



Flat Lead SOD-123 Package Outline



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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