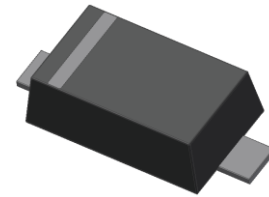


## 400mW SOD-123 SURFACE MOUNT Small Outline Flat Lead Plastic Package General Purpose Application Fast Switching Diode

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
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Weight: approx. 0.01g
- AEC-Q101 Qualified

### DEVICE MARKING CODE:

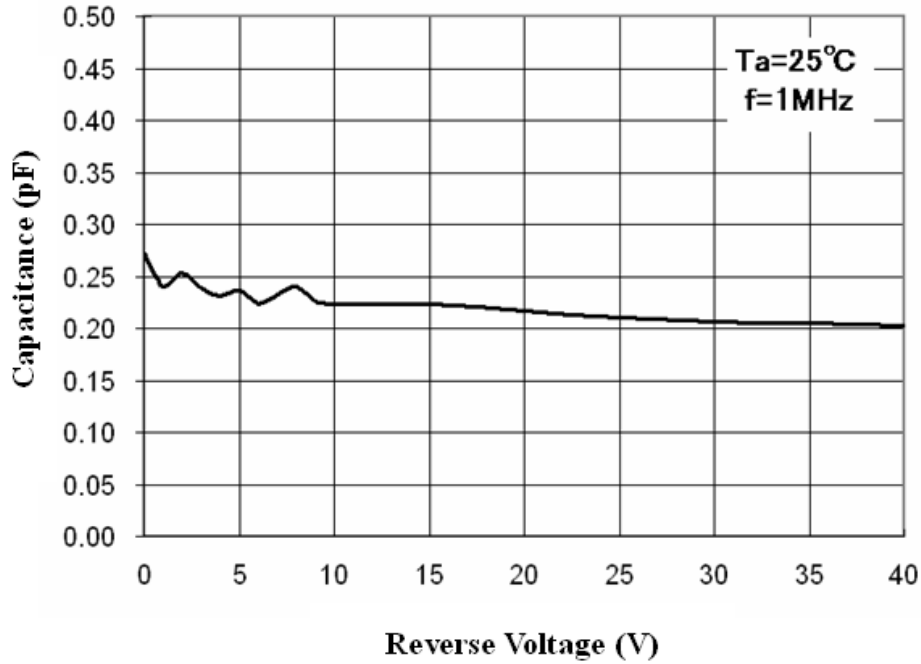
Device Type	Device Marking
1N4148W	D1
1N4448W	D2
1N914BW	D3

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

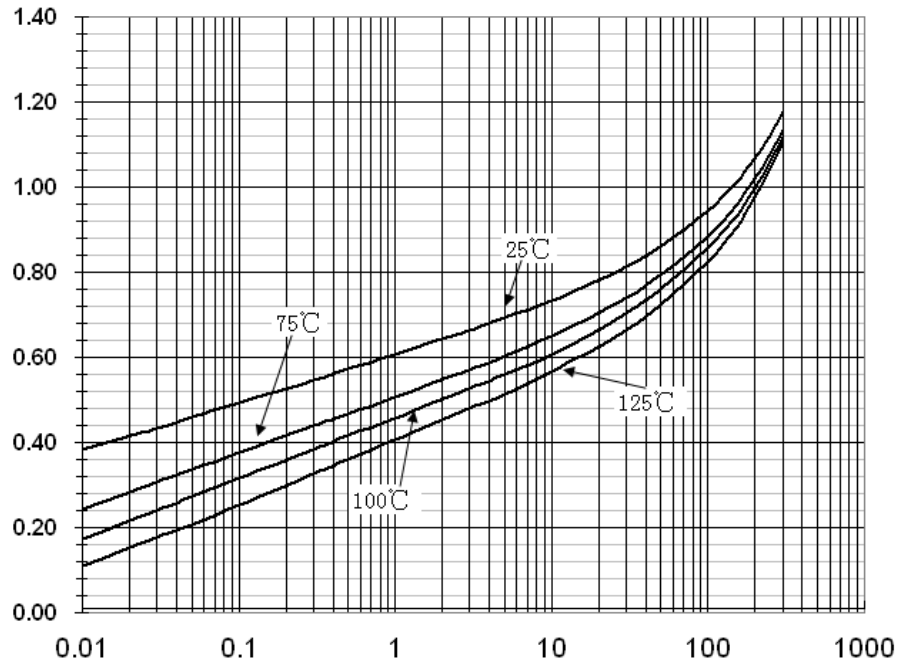
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
$B_V$	Breakdown Voltage	$I_R=100\mu\text{A}$	100		Volts
		$I_R=5\mu\text{A}$	75		
$I_R$	Reverse Leakage Current	$V_R=20\text{V}$		25	nA
		$V_R=75\text{V}$		5	$\mu\text{A}$
$V_F$	Forward Voltage	1N4448W, 1N914BW $I_F=5\text{mA}$	0.62	0.72	Volts
		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

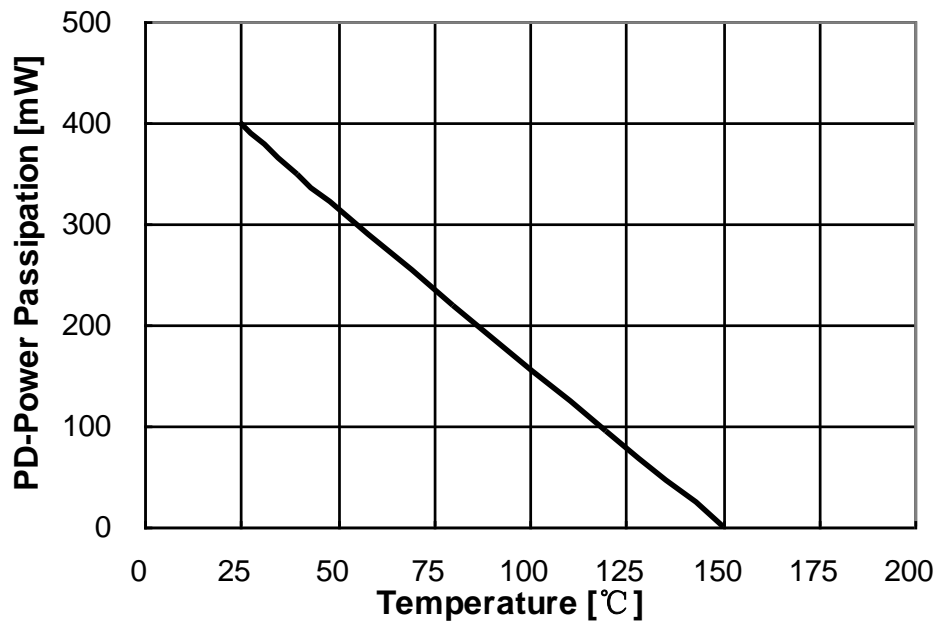
### Total Capacitance



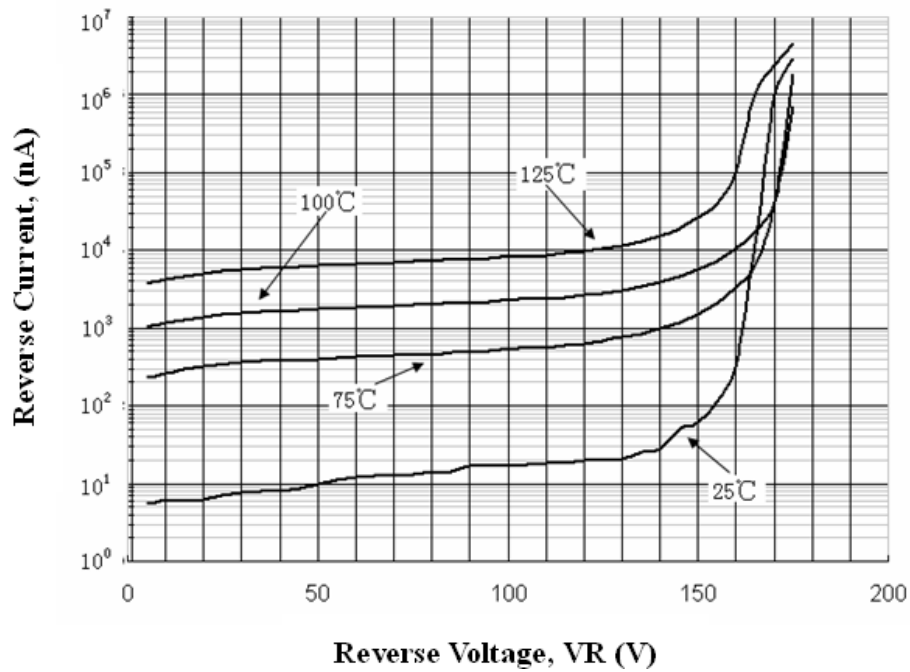
### Forward Voltage vs Ambient Temperature



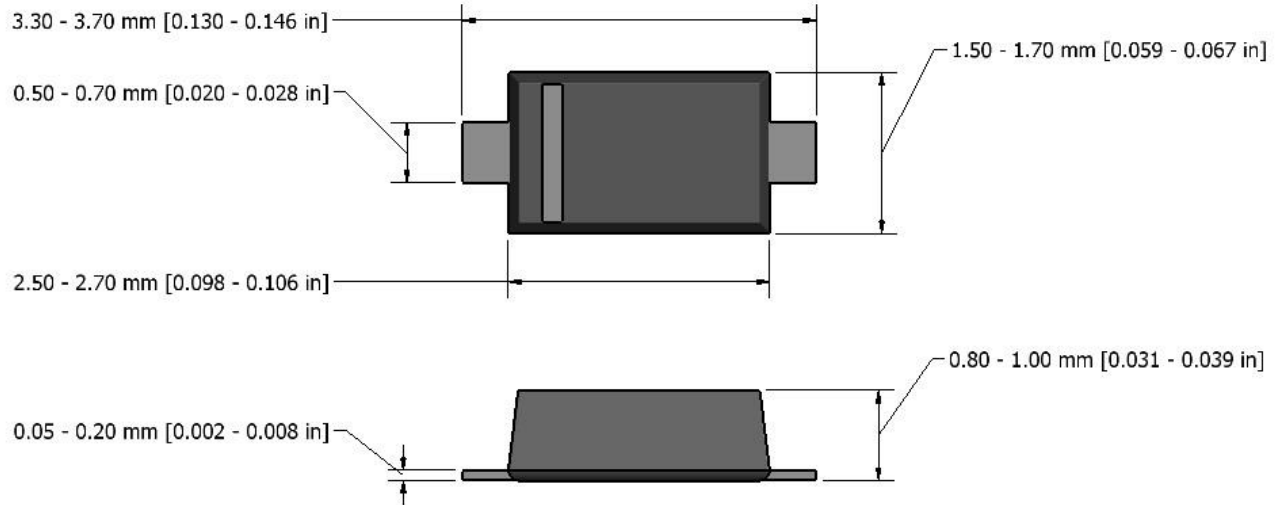
**Power Derating Curve**



**Reverse Current vs Reverse Voltage**



## Flat Lead SOD-123 Package Outline



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