

1N4148W/1N4448W/1N914BW

1N4148W/1N4448W/1N914BW Fast Switching Diode

General description

Surface Mount Silicon Switching Diode

FEATURES

- Fast Switching Device (TRR <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

Green Product



SOD-123 Flat Lead



ELECTRICAL SYMBOL

DEVICE MARKING CODE:

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

Absolute Maximum Ratings TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	400	mW
T_{STG}	Storage Temperature Range	-65 to +150	°C
T_J	Operating Junction Temperature	+150	°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

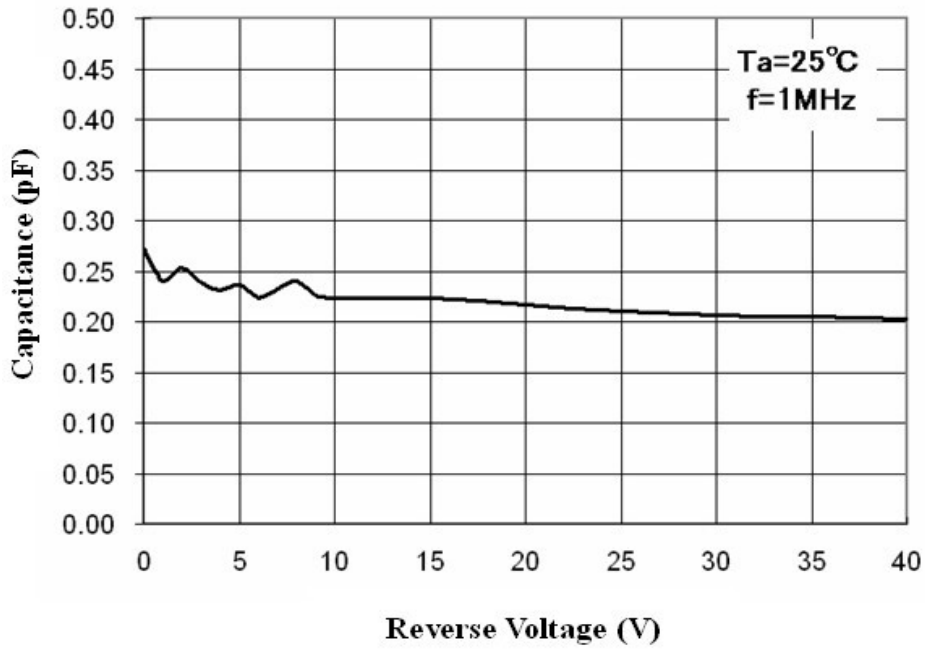
Electrical Characteristics

TA = 25°C unless otherwise noted

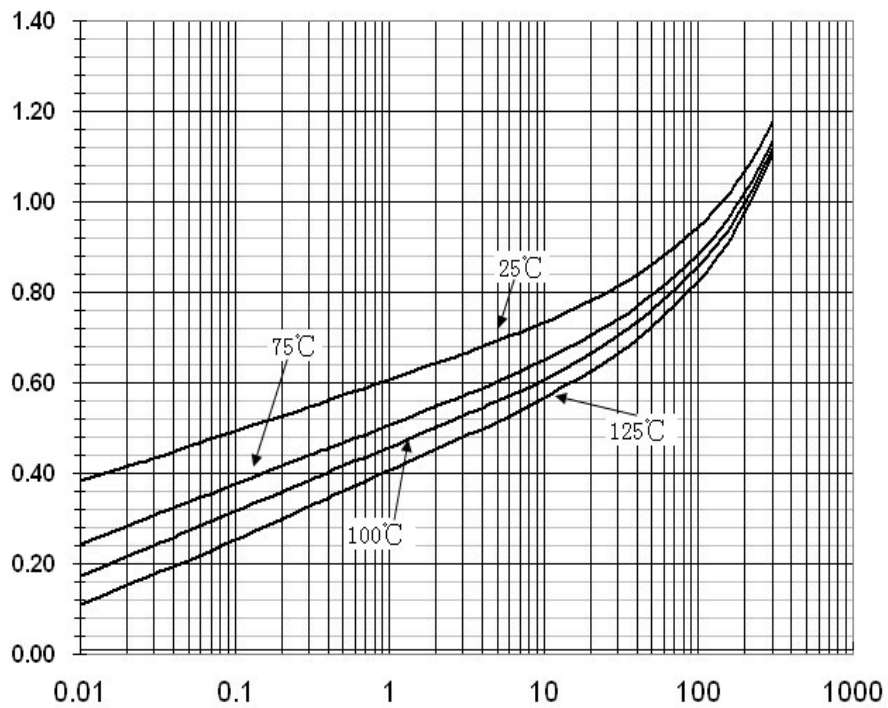
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R=100\mu A$	100		Volts
		$I_R=5\mu A$	75		
I_R	Reverse Leakage Current	$V_R=20V$		25	nA
		$V_R=75V$		5	μA
V_F	Forward Voltage	1N4448WS, 1N914BWS $I_F=5mA$	0.62	0.72	Volts
		1N4148WS $I_F=10mA$		1.0	
		1N4448WS, 1N914BWS $I_F=100mA$		1.0	
T_{RR}	Reverse Recovery Time	$I_F=10mA$		4	nS
		$I_R=60mA$			
		$R_L=100\Omega$			
		$I_{RR}=1mA$			
C	Capacitance	$V_R=0V, f=1MHz$		4	pF

Typical Performance Characteristics

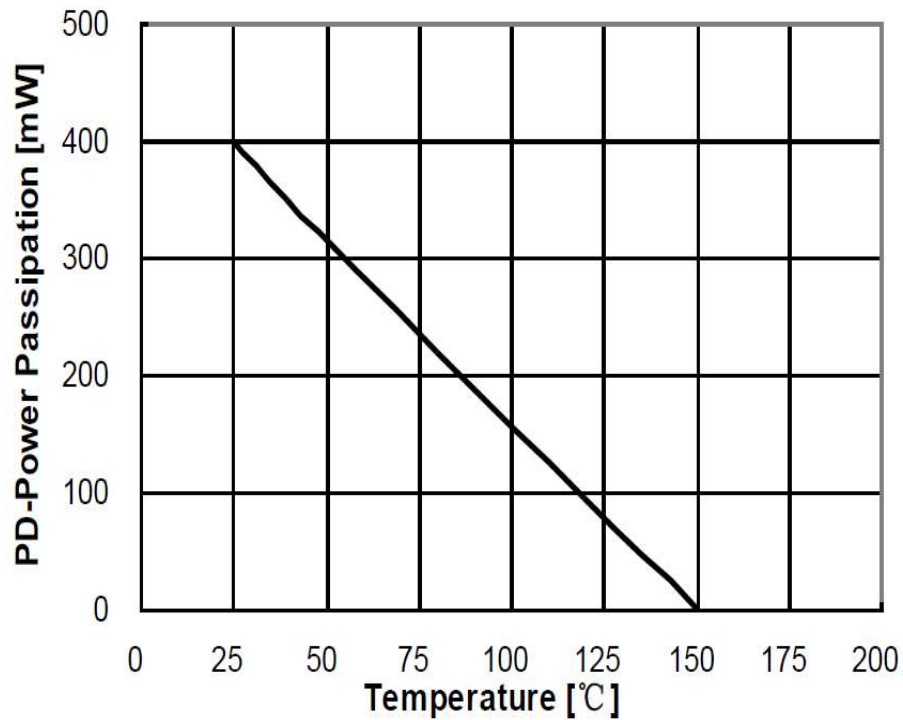
Total Capacitance



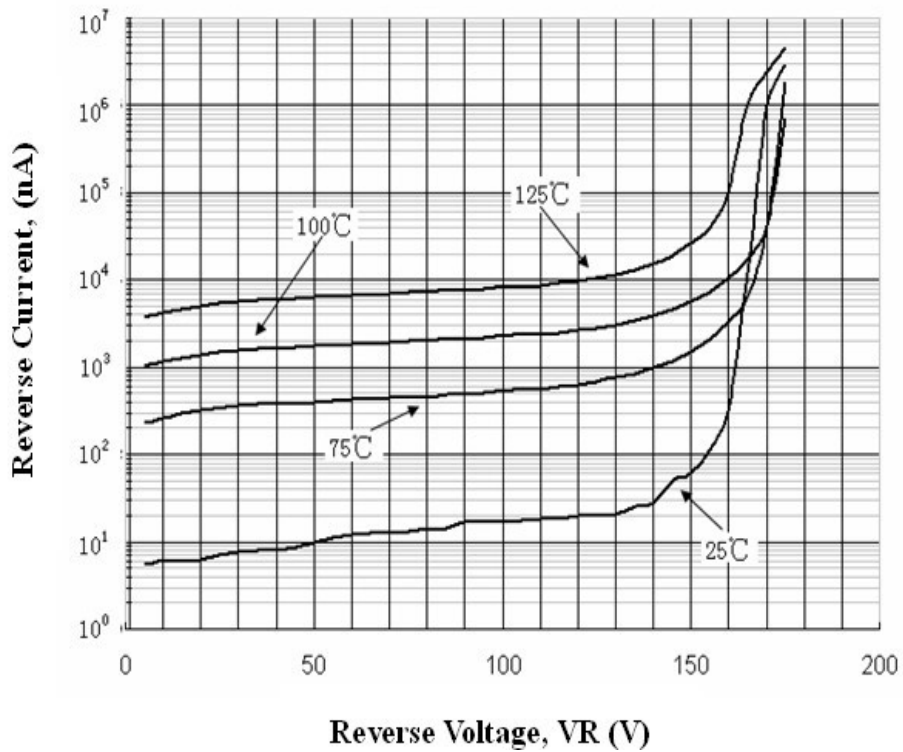
Forward Voltage vs Ambient Temperature



Power Derating Curve

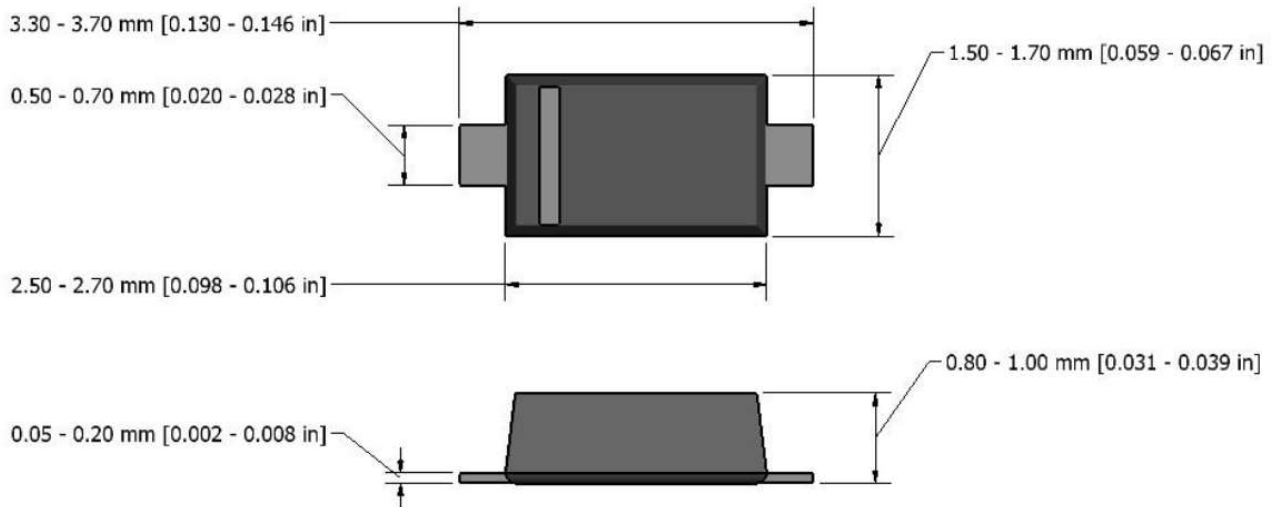


Reverse Current vs Reverse Voltage Reverse



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Flat Lead SOD-123 Package Outline



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

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