

1N4148WS/1N4448WS/1N914BWS

1N4148WS/1N4448WS/1N914BWS Fast Switching Diode

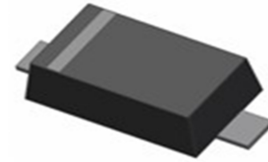
General description

Surface Mount Silicon Switching Diode

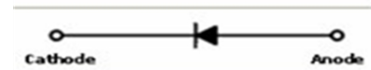
FEATURES

- Fast Switching Device (TRR <4.0 nS)
- General Purpose Diodes
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Weight: approx. 0.004g
- AEC-Q101 Qualified

Green Product



SOD-323 Flat Lead



ELECTRICAL SYMBOL

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

Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	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

DEVICE MARKING CODE:

Device Type	Device Marking
1N4148WS	S1 or T4
1N4448WS	
1N914BWS	

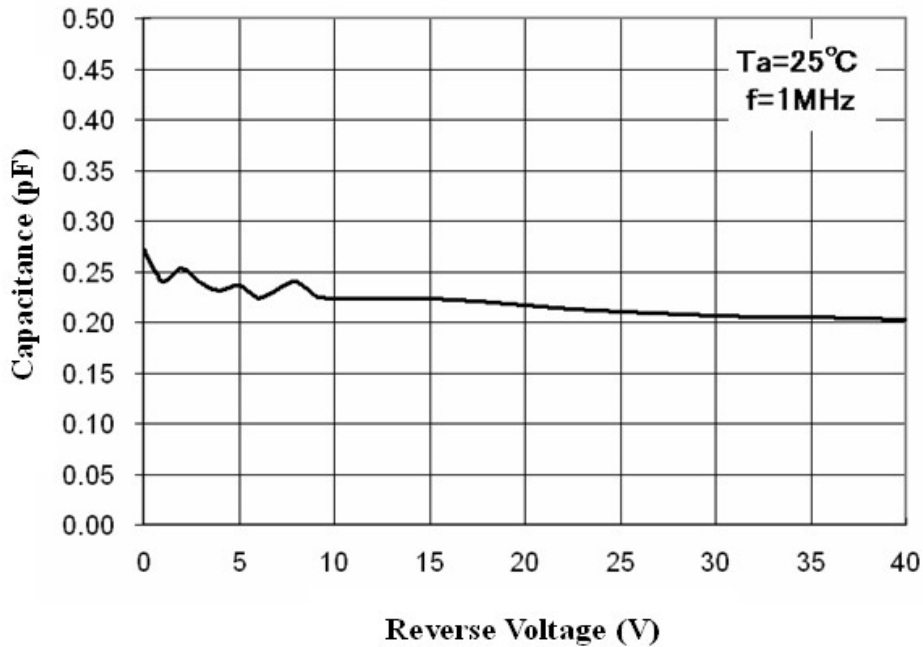
Electrical Characteristics

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

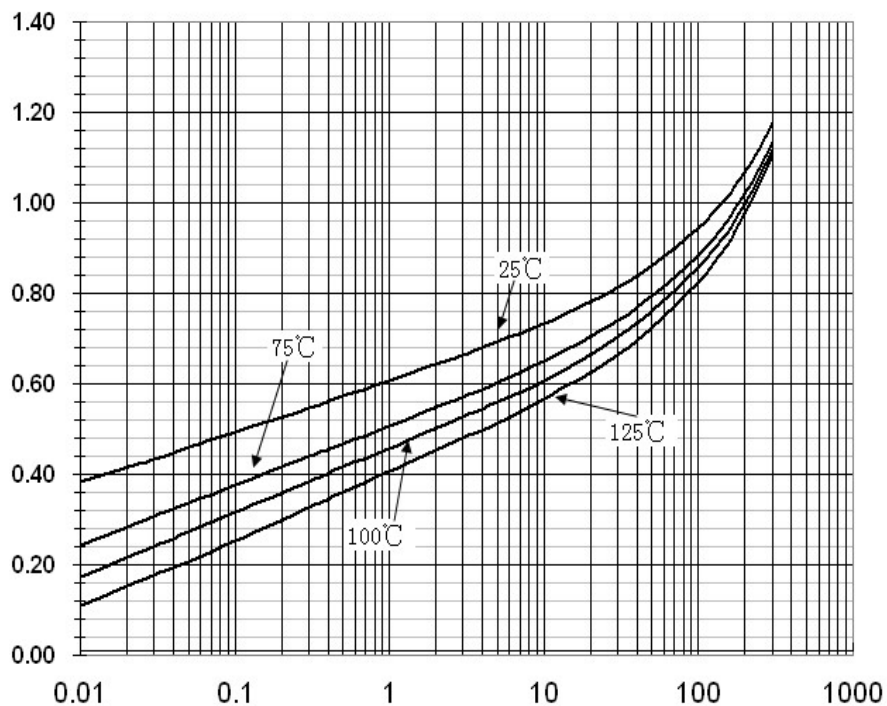
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R=100\mu\text{A}$	100		Volts
		$I_R=5\mu\text{A}$	75		
I_R	Reverse Leakage Current	$V_R=20\text{V}$		25	nA μA
		$V_R=75\text{V}$		5	
V_F	Forward Voltage	1N4448WS, 1N914BWS $I_F=5\text{mA}$	0.62	0.72	Volts
		1N4148WS $I_F=10\text{mA}$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

Typical Performance Characteristics

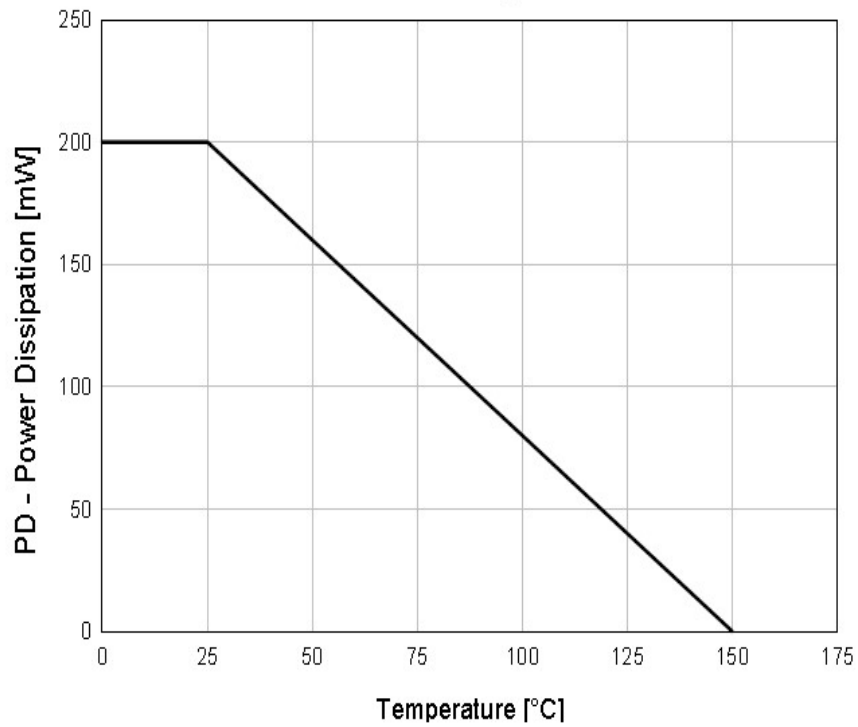
Total Capacitance



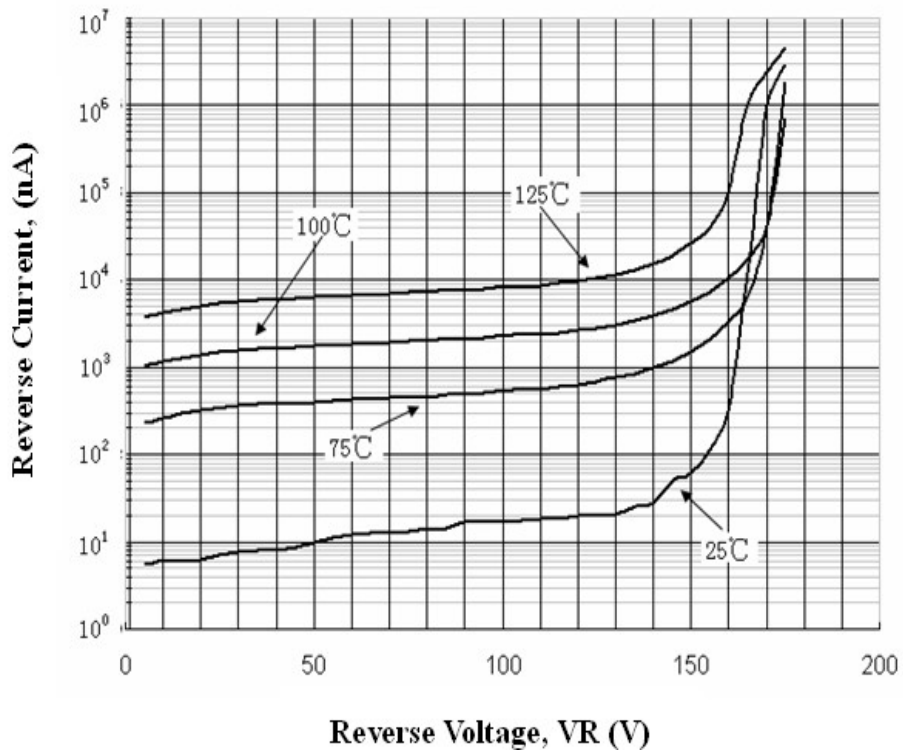
Forward Voltage vs Ambient Temperature



Power Derating Curve

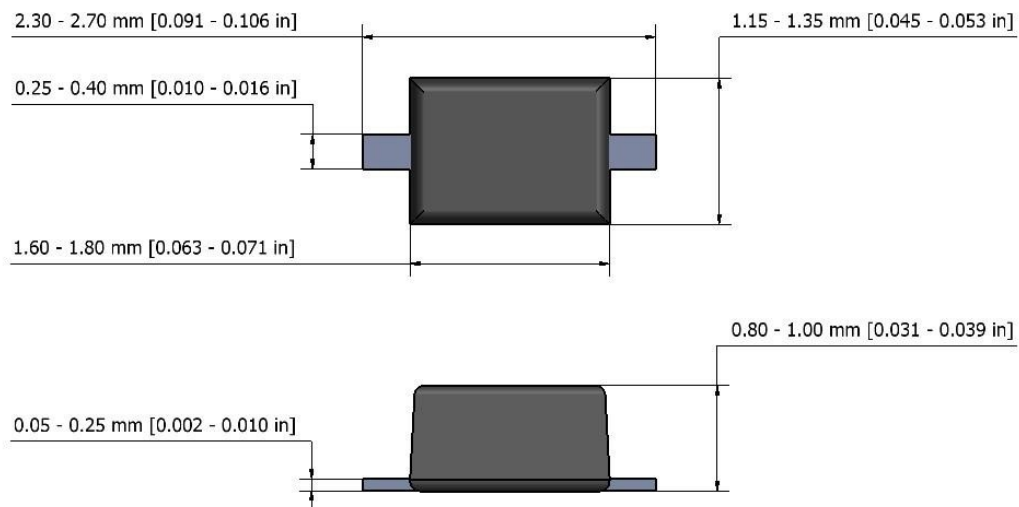


Reverse Current vs Reverse Voltage Reverse



1N4148WS/1N4448WS/1N914BWS

SOD-323 Package Outline



NOTES:

1. The above package outline is similar to JEITA SC-90.
2. Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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