

200mW SOD-323 SURFACE MOUNT Small Outline Flat Lead Plastic Package Fast Switching Diode

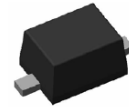
Specification Features:

- ◆ Fast Switching Device ($T_{RR} < 4.0 \text{ nS}$)
- ◆ General Purpose Diodes
- ◆ Flat Lead SOD-323 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
1N4148WS	T4
1N4448WS	T5
1N914BWS	T6

SOD-323



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=1 μs)	2	A

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



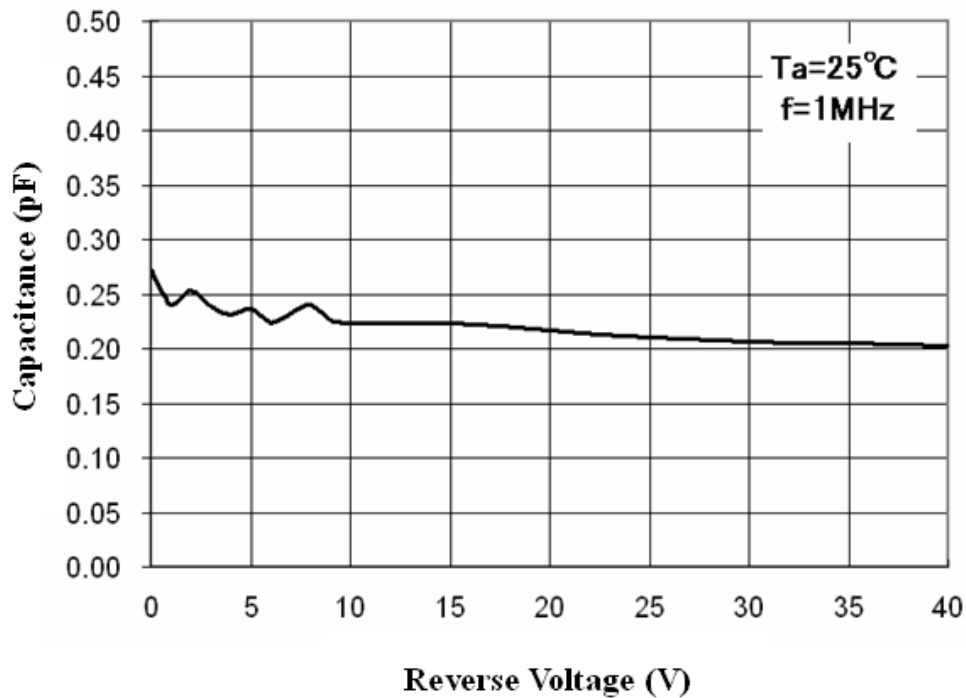
Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B _V	Breakdown Voltage	I _R =100μA	100		Volts
		I _R =5μA	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	1.0	Volts
		1N4148WS I _F =10mA			
		1N4448WS, 1N914BWS I _F =100mA			
T _{RR}	Reverse Recovery Time	I _F =10mA		4	nS
		I _R =60mA			
		R _L =100 Ω			
		I _{RR} =1mA			
C	Capacitance	V _R =0V, f=1MHz		4	pF

Typical Performance Characteristics

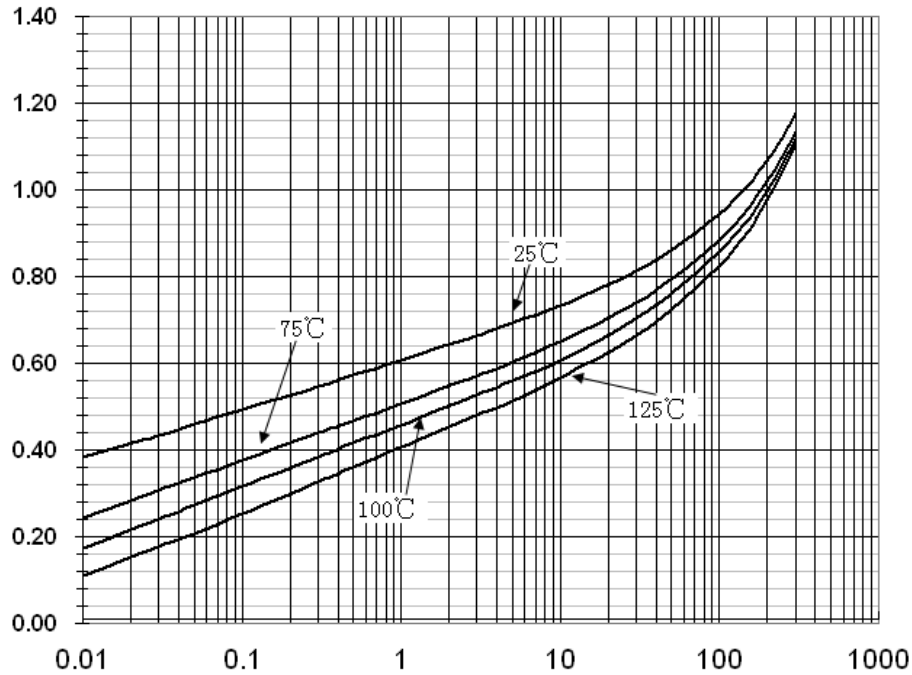
Total Capacitance



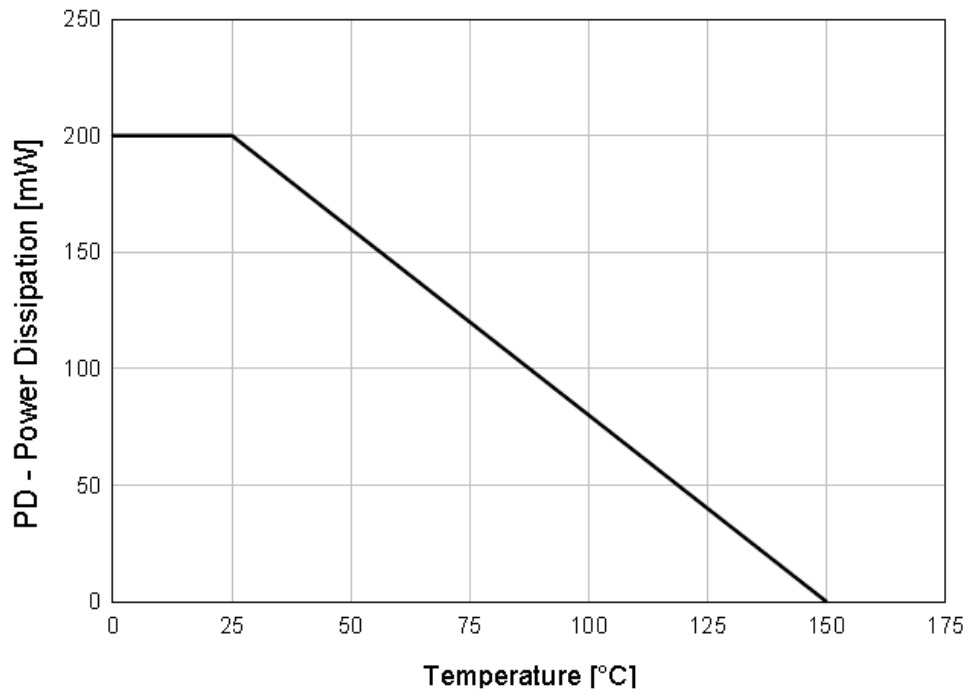


Typical Performance Characteristics

Forward Voltage vs Ambient Temperature



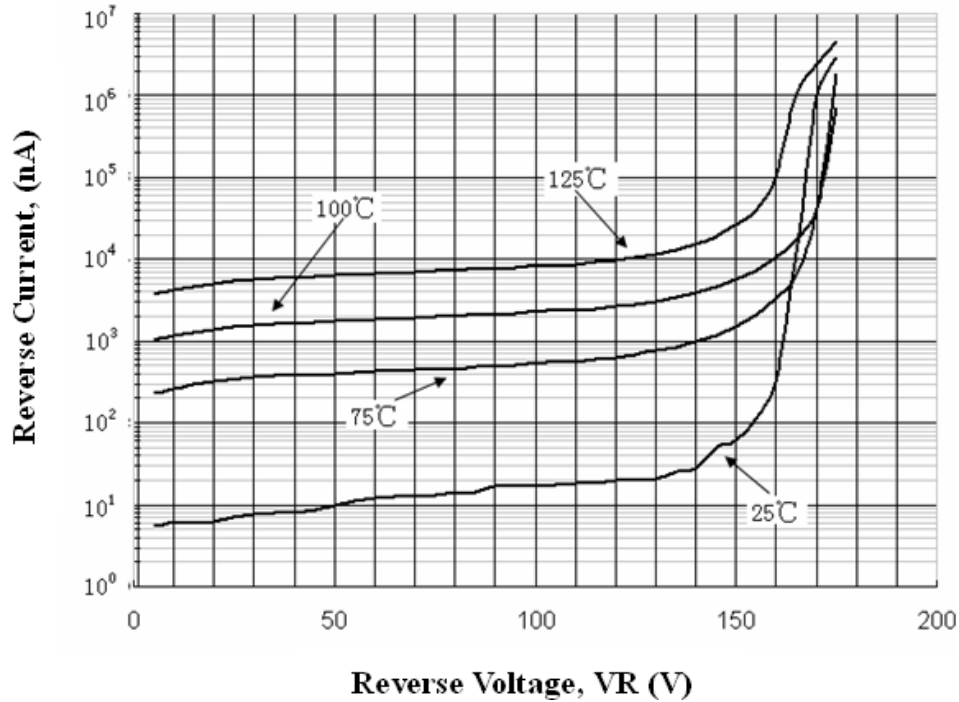
Power Derating Curve



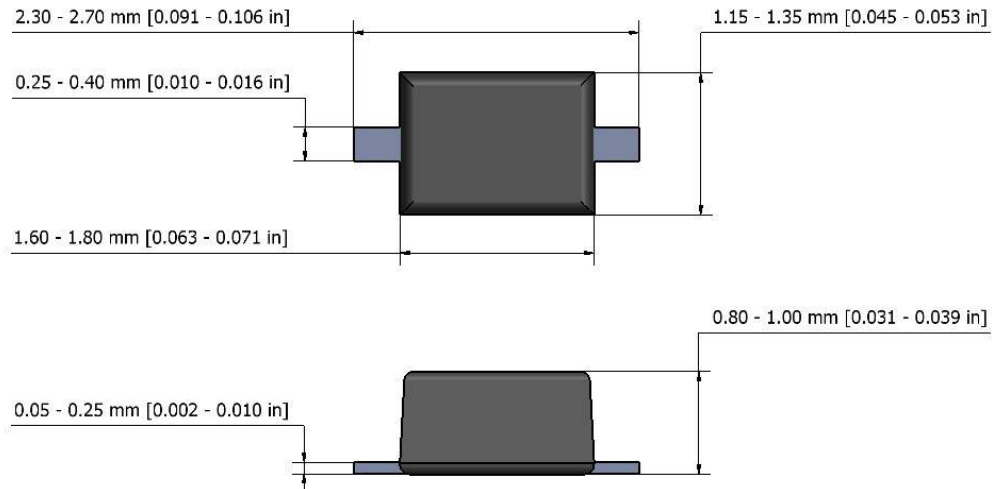


Typical Performance Characteristics

Reverse Current vs Reverse Voltage



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.