

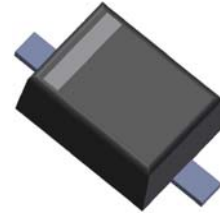


DATA SHEET

SEMICONDUCTOR

1N4148WSFL/1N4448WSFL/1N914BWSFL

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



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

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

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
- Moisture Sensitivity Level 1
- Clip Bonding Construction, Good Thermal Capability
- Pb Free Version and RoHS Compliant
- Matte Tin(Sn) Lead Finish with Nickel(Ni) Underplate
- Band Indicates Cathode



XX = Product Type Marking Code

DEVICE MARKING CODES:

Device Type	Device Marking
1N4148WSFL	S1
1N4448WSFL	S2
1N914BWSFL	S3

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	1N4448WSFL, 1N914BWSFL $I_F=5\text{mA}$	0.62	0.72	Volts
		1N4148WSFL $I_F=10\text{mA}$		1.0	
		1N4448WSFL, 1N914BWSFL $I_F=100\text{mA}$		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 Characteristics

1N4148WSFL/1N4448WSFL/1N914BWSFL

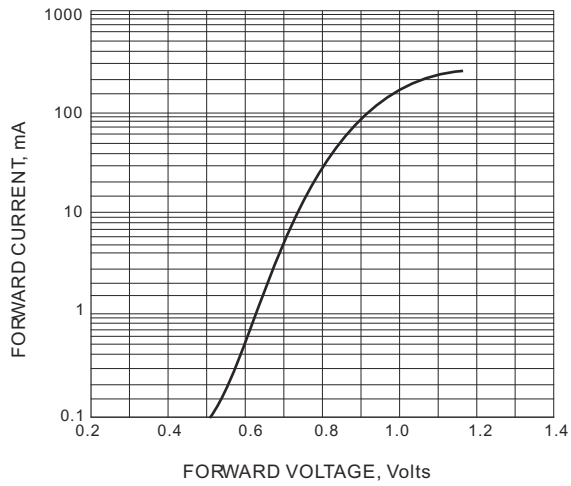


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

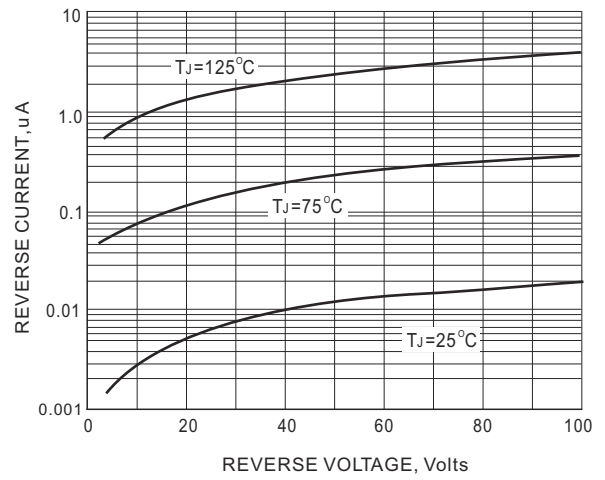


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

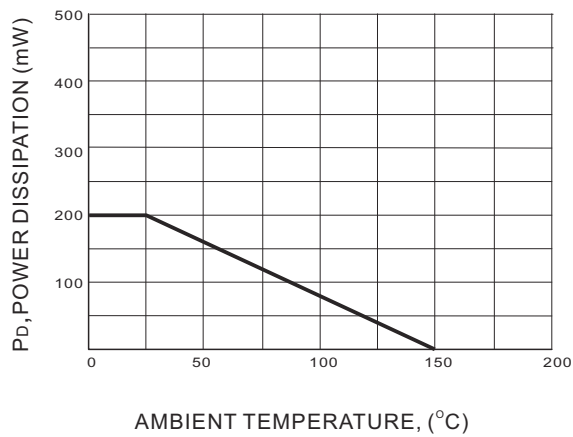
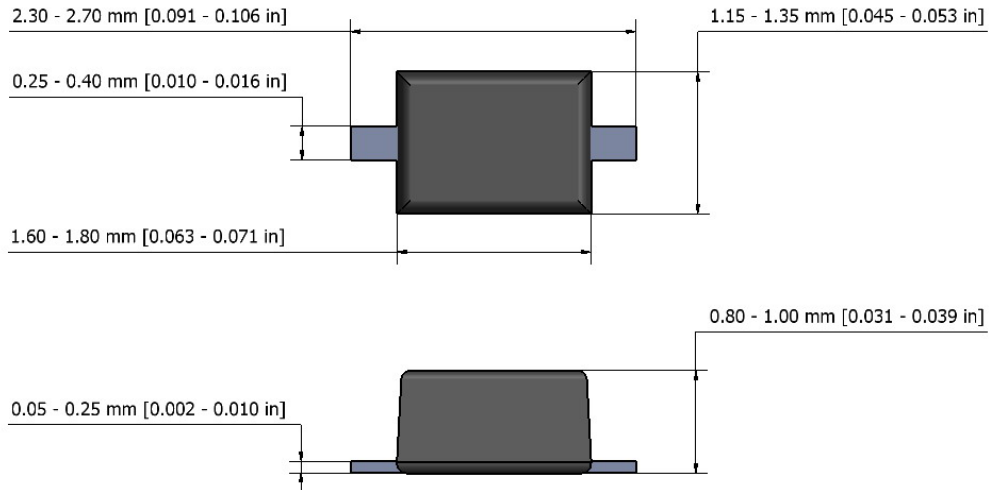
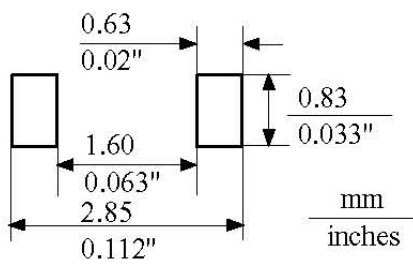


FIG. 3 POWER DERATING CURVE

SOD-323 Package Outline



NOTE: The above package outline is similar to JEITA SC-90.



Mounting Pad Layout