

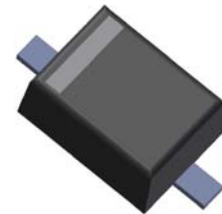


# DATA SHEET

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	$\mu\text{A}$
$V_F$	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

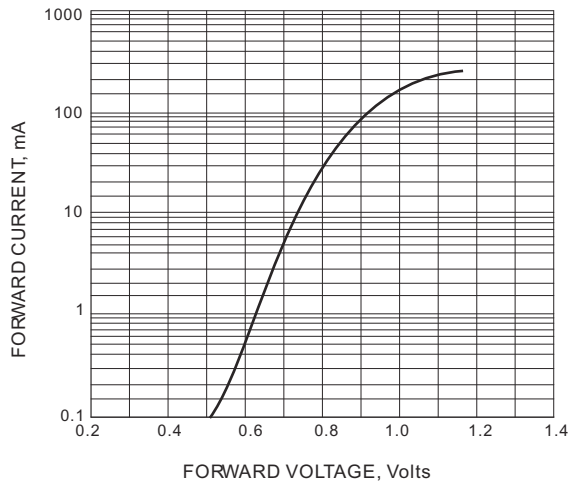


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

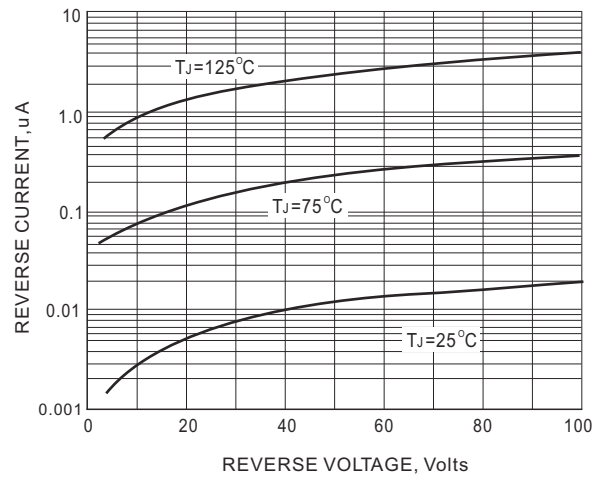


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

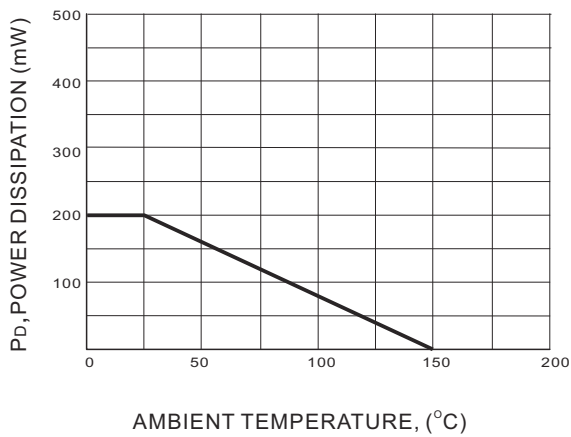
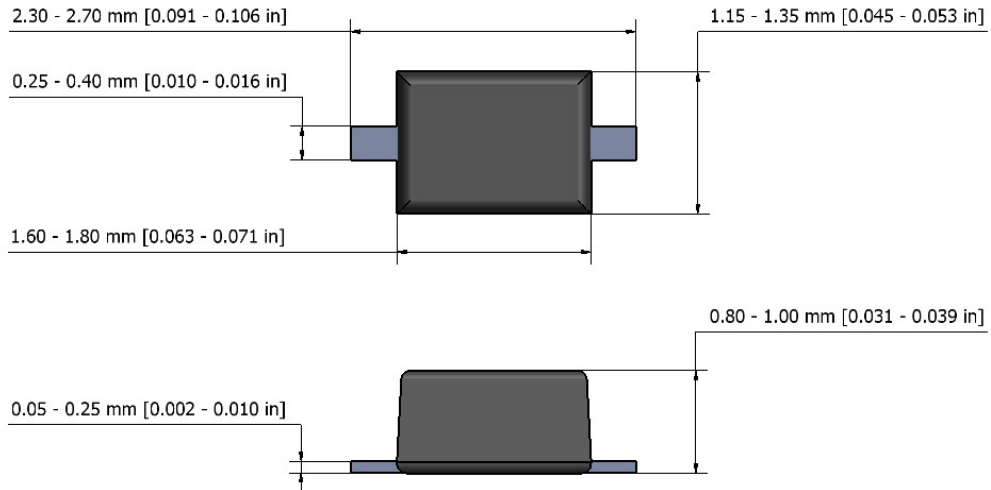


FIG. 3 POWER DERATING CURVE

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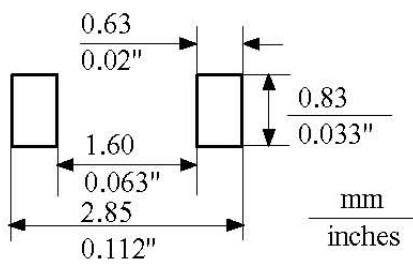
## SOD-323 Package Outline

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

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Mounting Pad Layout