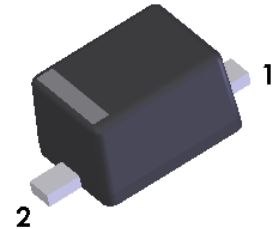
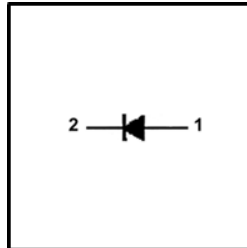


1N4148WS / 1N4448WS / 1N914BWS

Small Signal Diodes

- General Purpose Diodes
- Fast switching Device($T_{RR} < 4.0 \text{ ns}$)
- Very Small and Thin SMD package
- Moisture Level Sensitivity 1
- Pb-free Version and RoHS Compliant
- Matte Tin (Sn) Lead Finish
- Green Mold Compound

Device Marking Code	
Device Type	Device Marking
1N4148WS	S1
1N4448WS	S2
1N914BWS	S3



*Band Denotes Cathode SOD-323F

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

Symbol	Parameter	Value	Units
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
T_J	Operating Junction Temperature Range	+150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

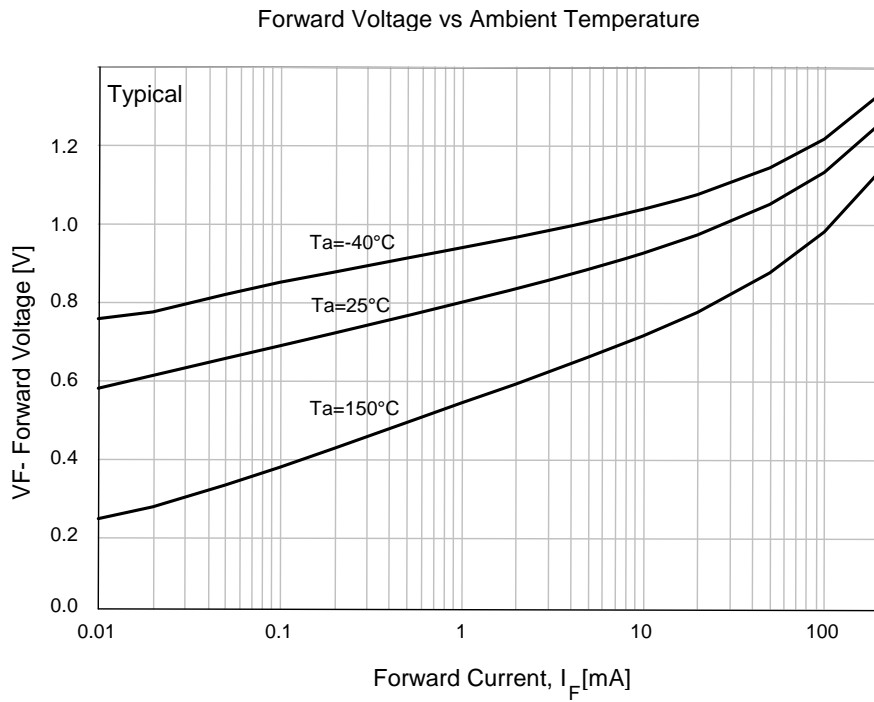
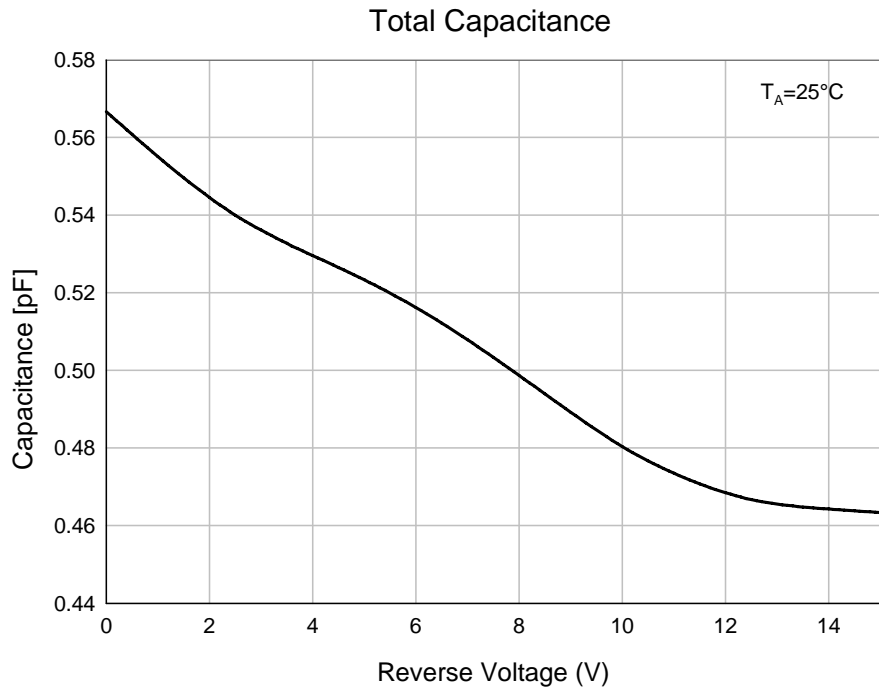
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	500	$^\circ\text{C}/\text{W}$
P_D	Power Dissipation($T_C=25^\circ\text{C}$)	200	mW

* Device mounted on FR-4 PCB minimum land pad.

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

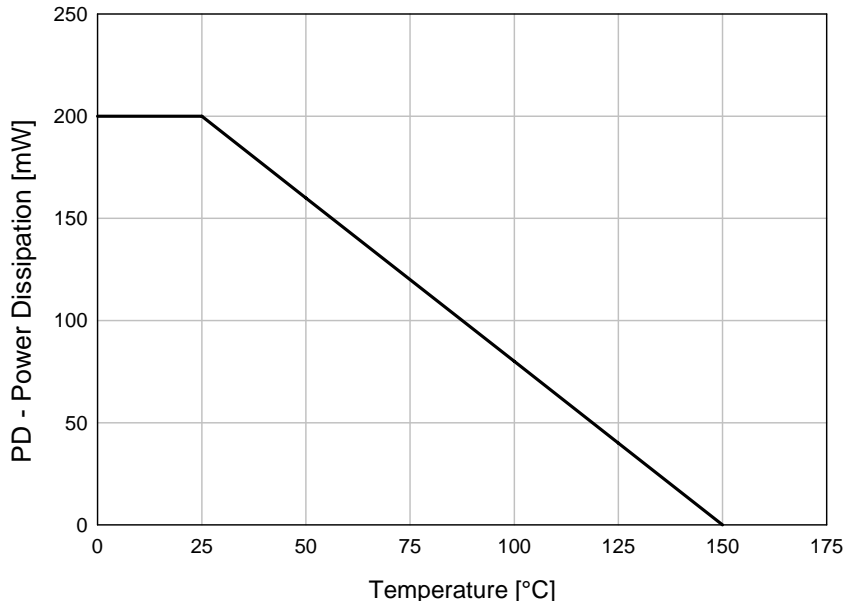
Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
BV_R	Breakdown Voltage	$I_R = 100 \mu\text{A}$ $I_R = 5 \mu\text{A}$	100 75			V
I_R	Reverse Current	$V_R = 20 \text{ V}$ $V_R = 75 \text{ V}$			25 5	nA μA
V_F	Forward Voltage	1N4448WS/ 914BWS 1N4148WS 1N4448WS/ 914BWS	0.62		0.72 1 1	V
C_O	Diode Capacitance	$V_R = 0, f = 1 \text{ MHz}$			4	pF
T_{RR}	Reverse Recovery Time	$I_F = 10 \text{ mA}, I_R = 60 \text{ mA}$ $I_{RR} = 1 \text{ mA}, R_L = 100 \Omega$			4	nS

Typical Performance Characteristics

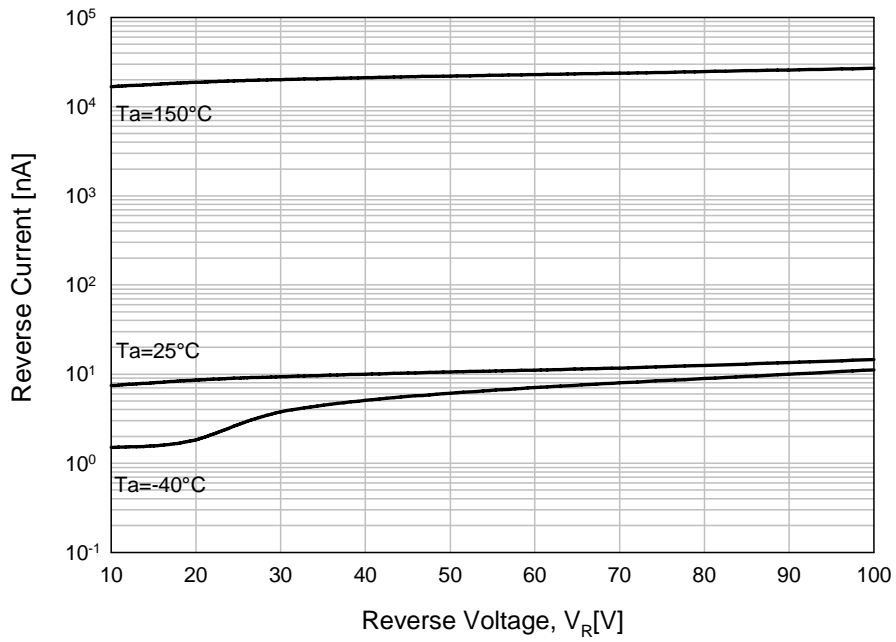


Typical Performance Characteristics

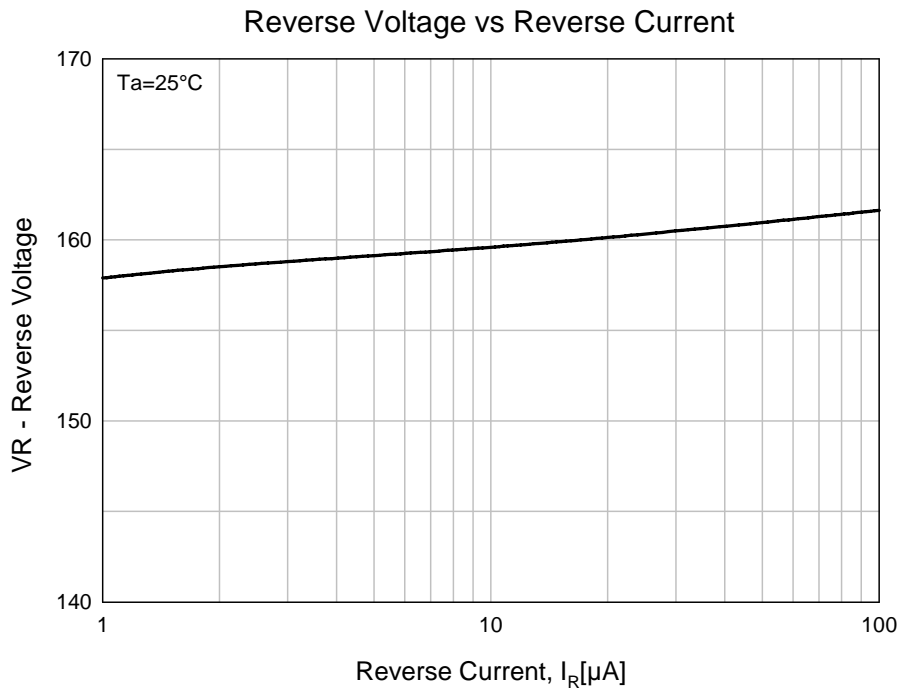
Power Derating Curve



Reverse Current vs Reverse Voltage

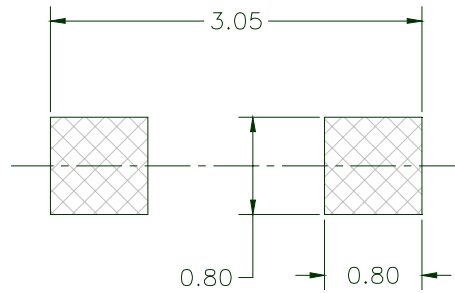
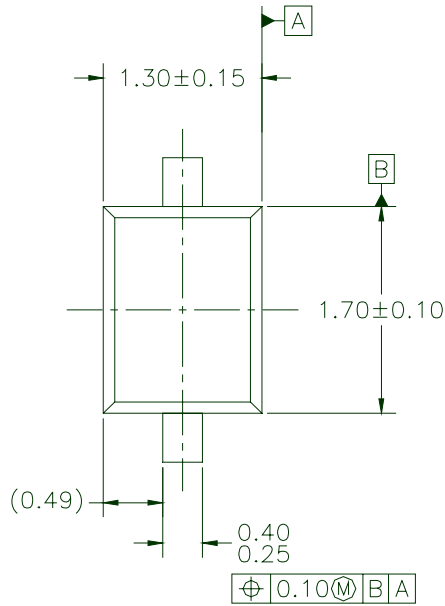


Typical Performance Characteristics

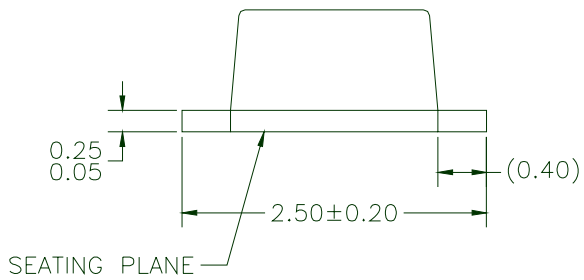


Package Dimensions

SOD-323F



LAND PATTERN RECOMMENDATION



SEATING PLANE

NOTES: UNLESS OTHERWISE SPECIFIED


- A) THIS PACKAGE IS COMPLIANT TO JEITA SC90 STANDARD EXCEPT FOR THE OVERALL PACKAGE HEIGHT.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR EXTRUSIONS.
- D) DIMENSIONING AND TOLERANCING PER ASME Y14.5M - 1994.

MKT-SOD323F2REV1



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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.