



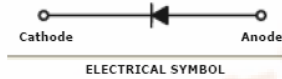
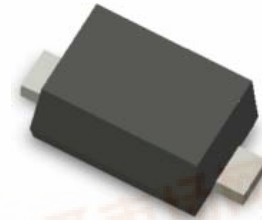
March 2008

# 1N4148WT / 1N4448WT / 1N914BWT High Conductance Fast Switching Diode

- Fast Switching Diode (T<sub>rr</sub> < 4.0nsec)
- Flat Lead, Surface Mount Device under 0.70mm Height
- Extremely Small Outline Plastic Package SOD523F
- 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
1N4148WT	E1
1N4448WT	E2
1N914BWT	E3



SOD-523F  
Band Indicates Cathode\*

## Absolute Maximum Ratings\* T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RSM</sub>	Non-Repetitive Peak Reverse Voltage	75	V
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	75	V
I <sub>FRM</sub>	Repetitive Peak Forward Current	300	mA
T <sub>J</sub>	Operating Junction Temperature Range	-55 to +150	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

## Thermal Characteristics

Symbol	Parameter	Value	Unit
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	500	°C/W
P <sub>D</sub>	Power Dissipation (T <sub>C</sub> =25°C)	200	mW

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

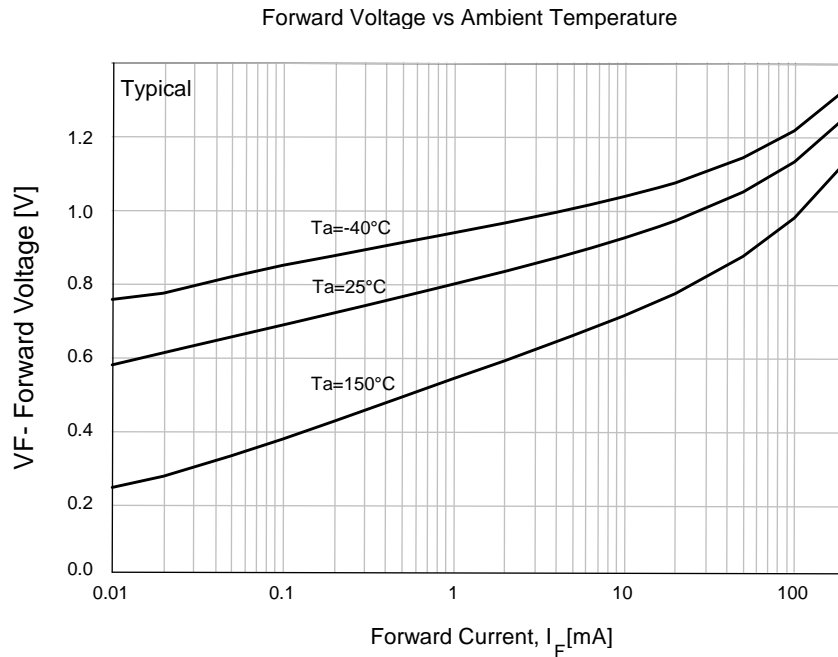
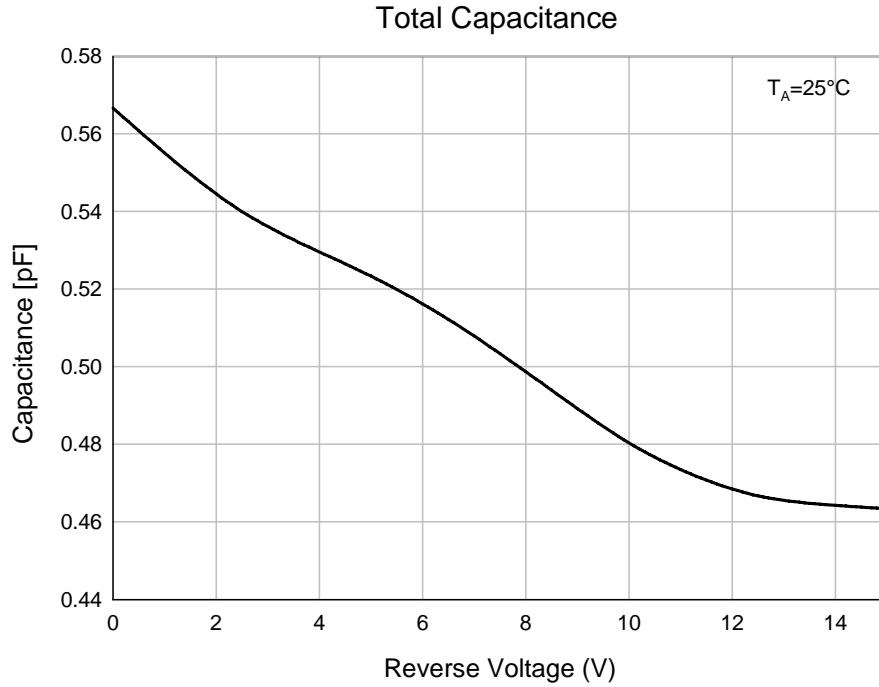
## Electrical Characteristics\* T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
BV <sub>R</sub>	Breakdown Voltage	I <sub>R</sub> = 100 μA I <sub>R</sub> = 5 μA	100 75			V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 20 V V <sub>R</sub> = 75 V			25 5	nA μA
V <sub>F</sub>	Forward Voltage	1N4448WT/ 914WT 1N4448WT 1N4448WT/ 914WT	0.62		0.72 1 1	V
C <sub>O</sub>	Diode Capacitance	V <sub>R</sub> = 0, f = 1 MHz			4	pF
T <sub>RR</sub>	Reverse Recovery Time	I <sub>F</sub> = 10 mA, V <sub>R</sub> = 6.0 V I <sub>RR</sub> = 1 mA, R <sub>L</sub> = 100 Ω			4	nS

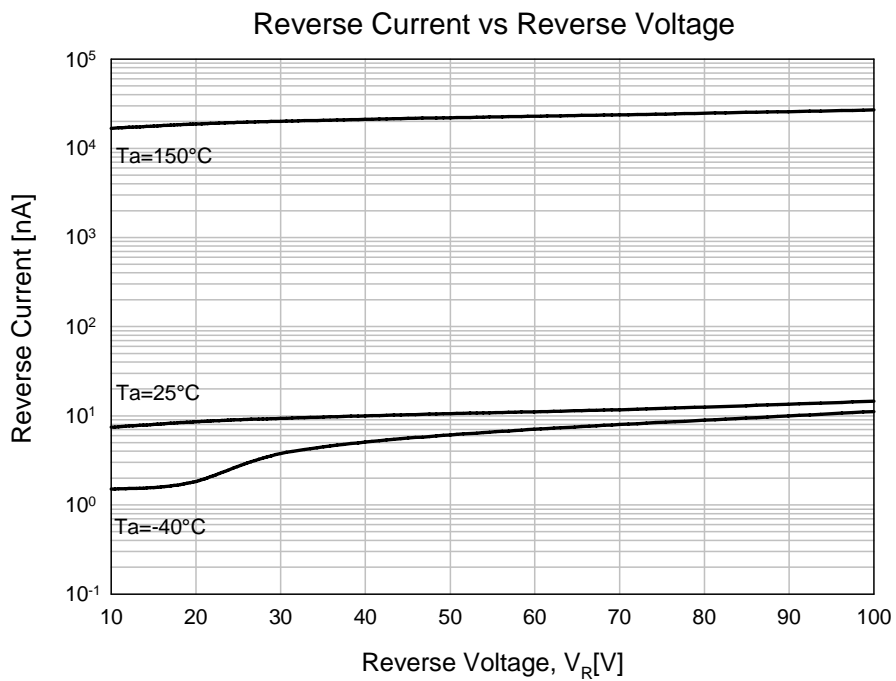
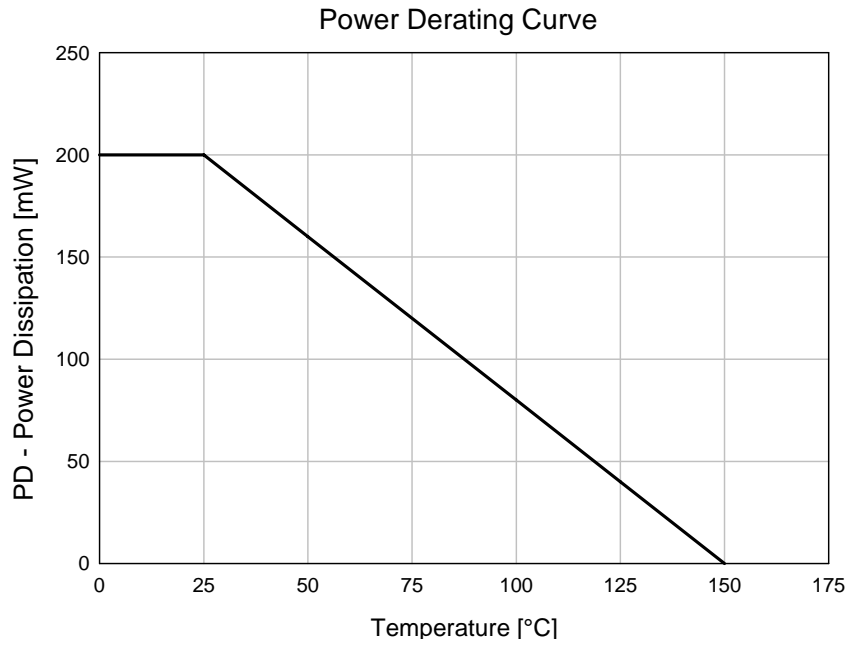
1N4148WT / 1N4448WT / 1N914BWT — High Conductance Fast Switching Diode



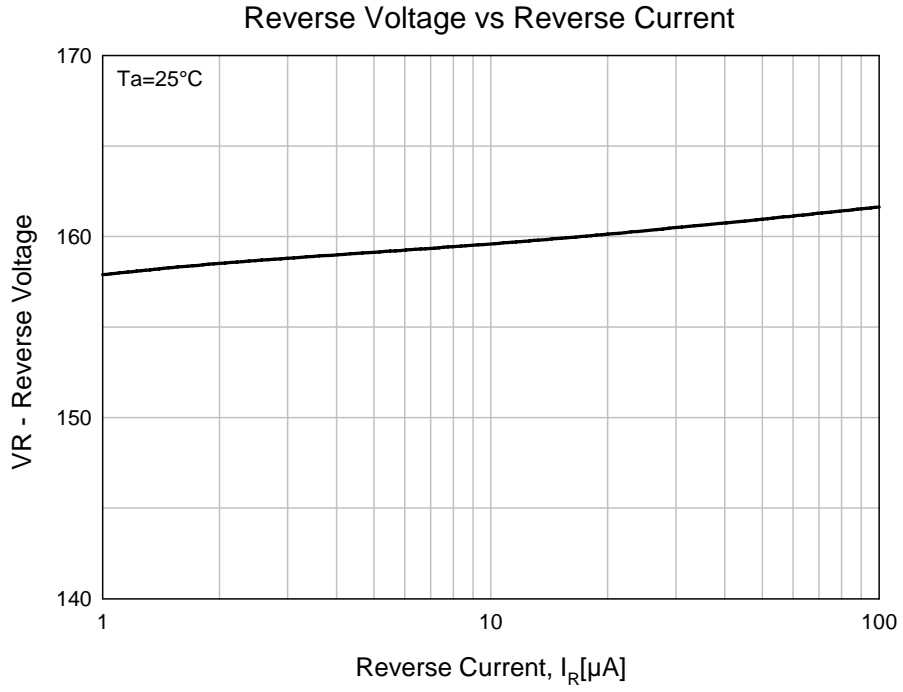
### Typical Performance Characteristics



Typical Performance Characteristics

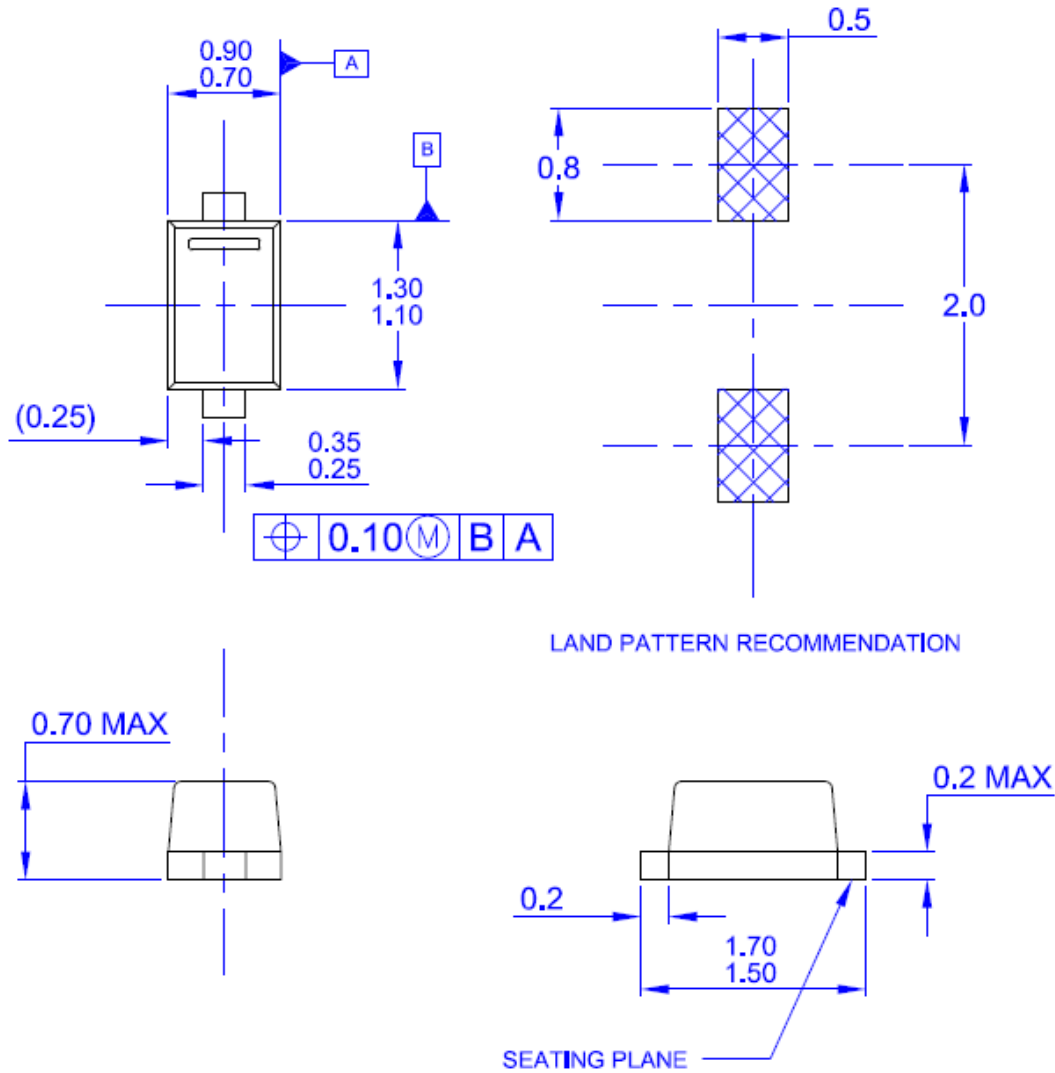


### Typical Performance Characteristics



## Package Dimension

### SOD-523F




#### NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE REFERENCE: THIS PACKAGE OUTLINE CONFORMS TO JEITA SC-79.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DRAWING CONFORMS TO ASME Y14.5M - 1994
- D) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
- E) LANDPATTERN RECOMMENDATION IS BASED ON IPC7351A STANDARD SOD1609X65M.
- F) DRAWING NUMBER AND REVISION;MKT-SOD523F1rev1



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