



SEMICONDUCTOR

DATA SHEET

1NWT



200mW SOD-523 SURFACE MOUNT Very Small Outline Flat Lead Plastic Package General Purpose Application Fast Switching Diode

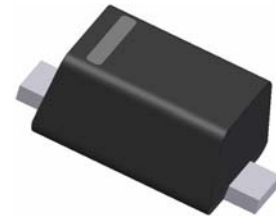
DEVICE MARKING CODE:

Device Type	Device Marking
1N4148WT	E1
1N4448WT	E2
1N914BWT	E3

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	-55 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

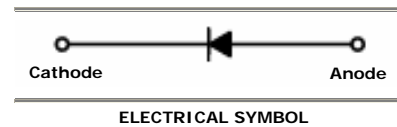
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-523 Flat Lead

Specification Features:

- Fast Switching Device ($T_{RR} < 4.0$ nS)
- General Purpose Diodes
- Extremely Small SOD-523 Package
- Flat Lead SOD-523 Small Outline Plastic Package
- Surface Device Type Mounting
- Moisture Sensitivity Level 1
- Pb Free Version and RoHS Compliant
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



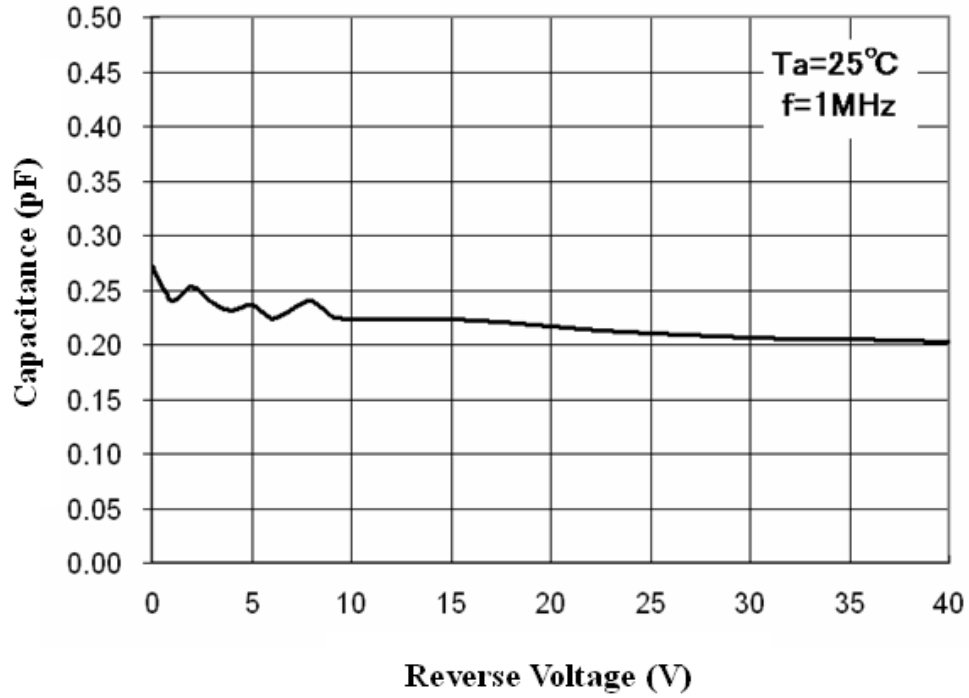
Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

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	1N4448WT, 1N914BWT $I_F = 5\text{mA}$	0.62	0.72	Volts
		1N4148WT $I_F = 10\text{mA}$		1.0	
		1N4448WT, 1N914BWT $I_F = 100\text{mA}$		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

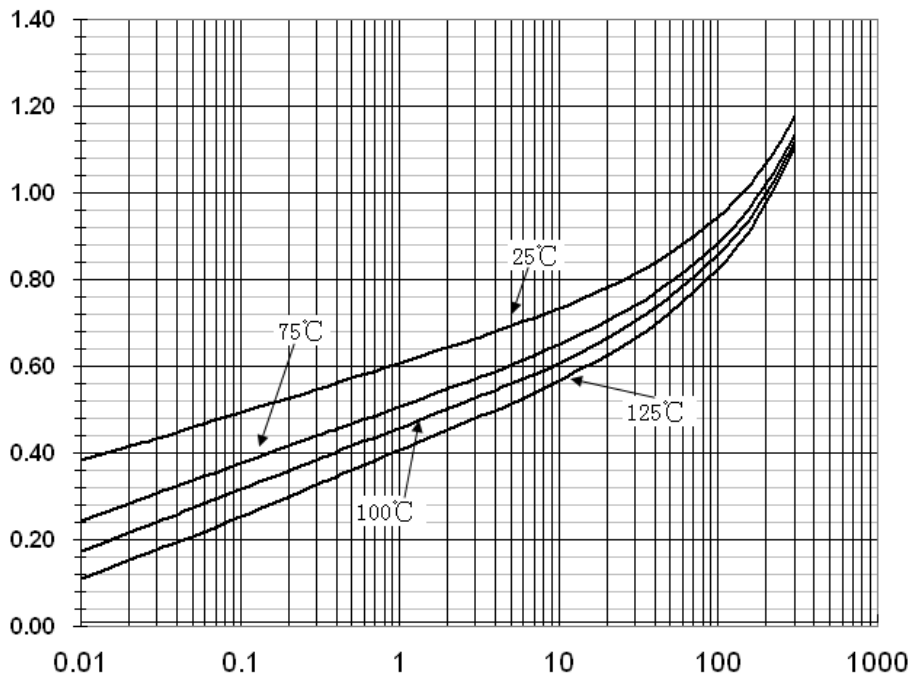
DEVICE CHARACTERISTICS

1NxxxxWT

Total Capacitance



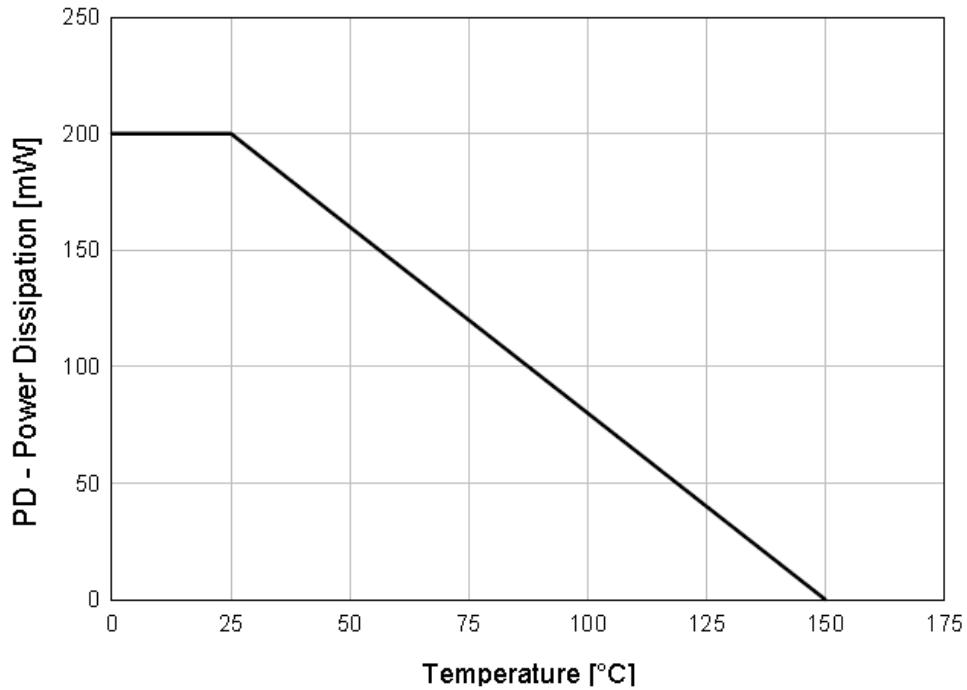
Forward Voltage vs Ambient Temperature



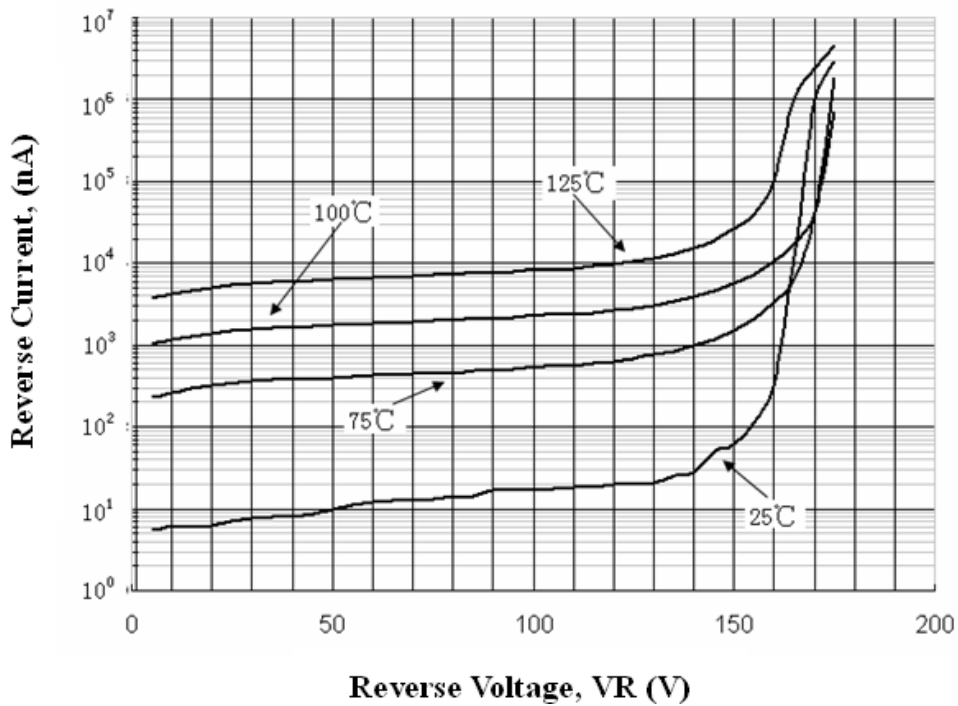
DEVICE CHARACTERISTICS

1NxxxxWT

Power Derating Curve



Reverse Current vs Reverse Voltage



DEVICE CHARACTERISTICS

1NxxxxWT

Flat Lead SOD-523 Package Outline

