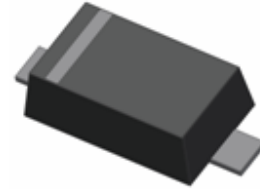
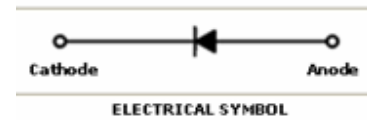


**200mW SOD-523 SURFACE MOUNT**  
**Very Small Outline Flat Lead Plastic Package**  
**General Purpose Application**  
**Fast Switching Diode**

**Green Product**



SOD-523 Flat Lead



**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
$I_{FSM}$	Non-repetitive Peak Forward Surge Current (Pulse Width=1us)	2	A

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

**Specification Features:**

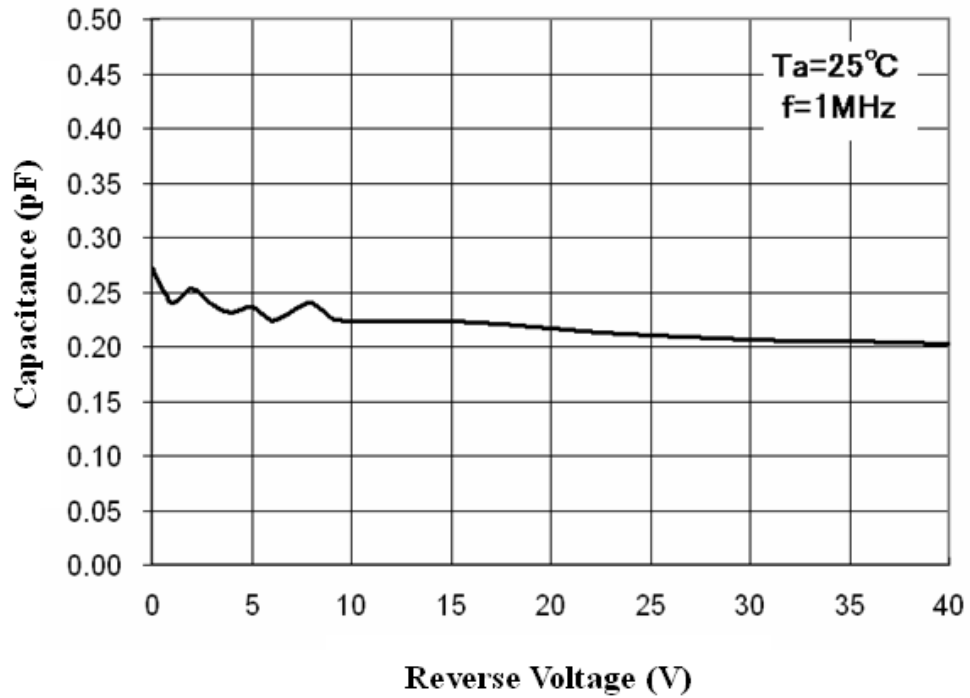
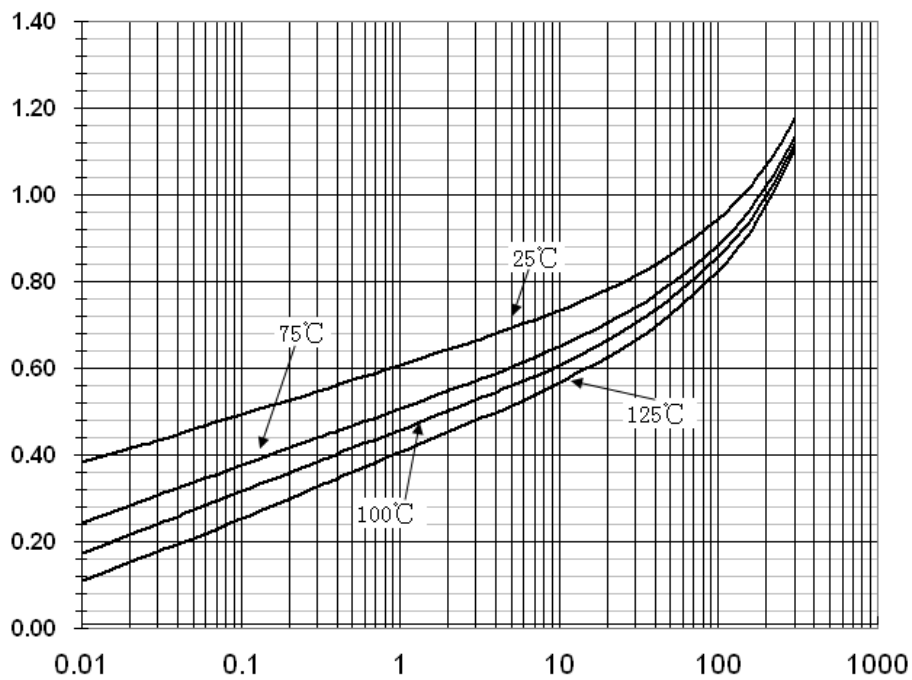
- Fast Switching Device ( $T_{RR} < 4.0$  nS)
- General Purpose Diodes
- Extremely Small SOD-523 Package
- Flat Lead SOD-523 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

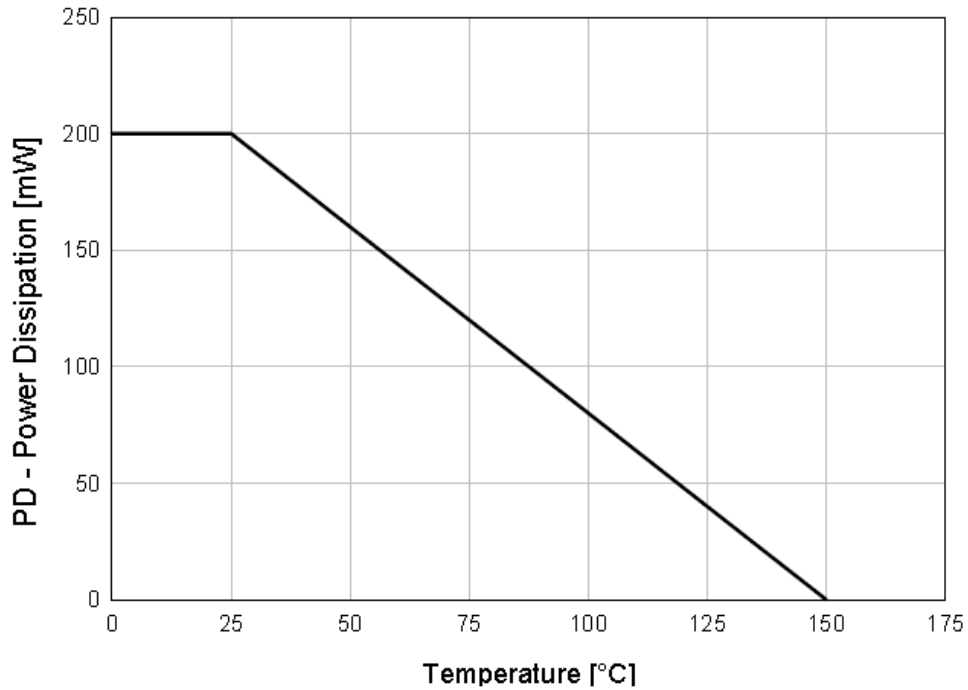
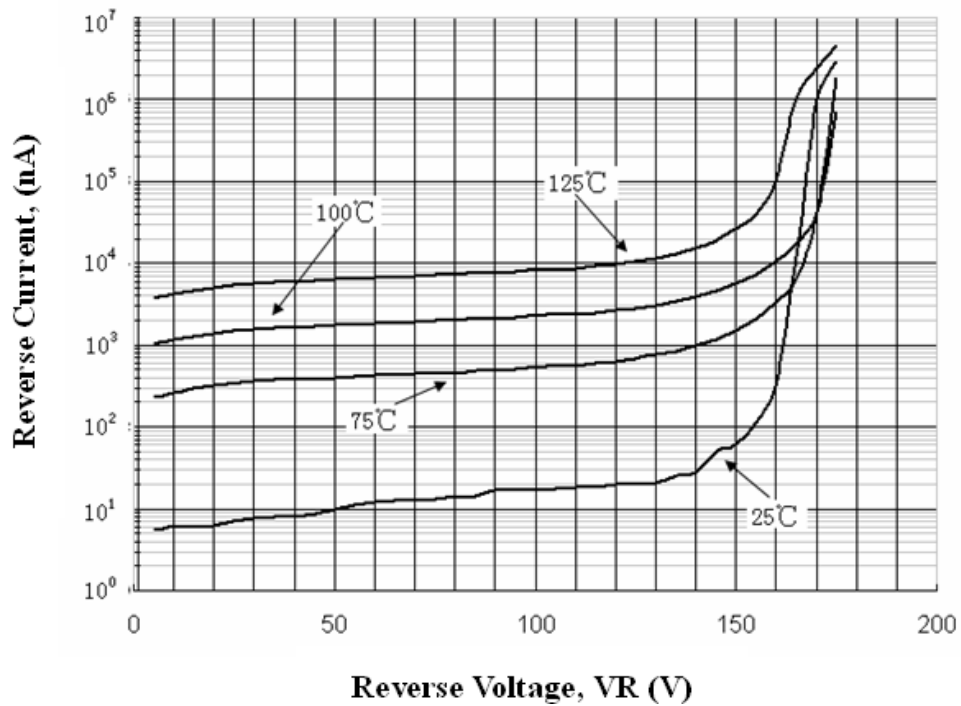
**DEVICE MARKING CODE:**

Device Type	Device Marking
TC1N4148WT	E1
TC1N4448WT	E2
TC1N914BWT	E3

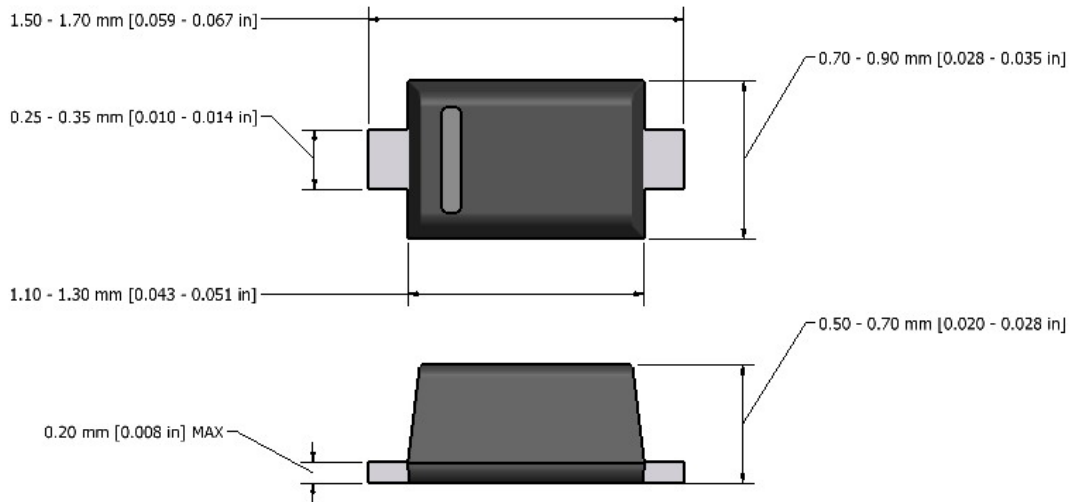
**Electrical Characteristics**  $T_A = 25^\circ\text{C}$  unless otherwise noted

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	TC1N4448WT, TC1N914BWT $I_F = 5\text{mA}$	0.62	0.72	Volts
		TC1N4148WT $I_F = 10\text{mA}$		1.0	
		TC1N4448WT, TC1N914BWT $I_F = 100\text{mA}$		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 Performance Characteristics**
**Total Capacitance**

**Forward Voltage vs Ambient Temperature**


**Power Derating Curve**

**Reverse Current vs Reverse Voltage**


**Flat Lead SOD-523 Package Outline**



**Note:** Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

**NOTICE**

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