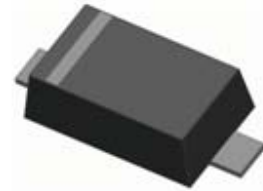


**200mW SOD-523 SURFACE MOUNT**  
**Very Small Outline Flat Lead Plastic Package**  
**General Purpose Application**  
**Fast Switching Diode**

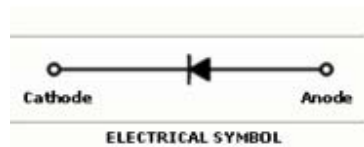
**Specification Features:**

- 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

**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
$I_T^2$	Typical Current Squared Time	0.02	$\text{A}^2\text{S}$

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

**DEVICE MARKING CODE:**

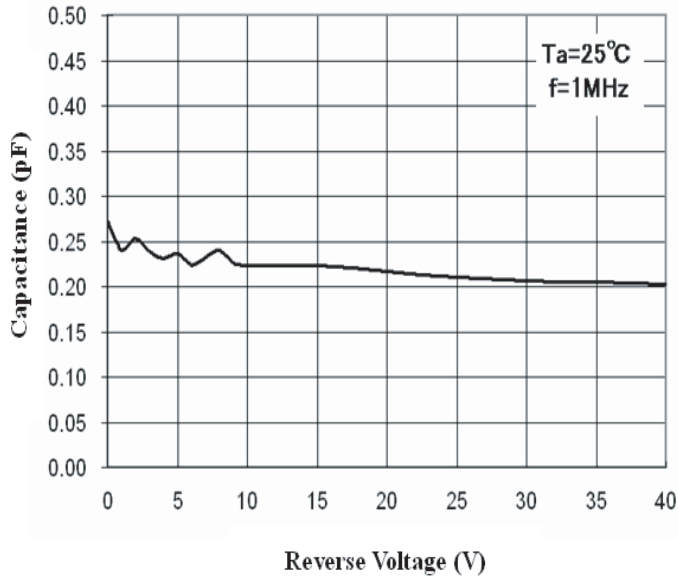
Device Type	Device Marking
1N4148WT	E1
1N4448WT	E2
1N914BWT	E3

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

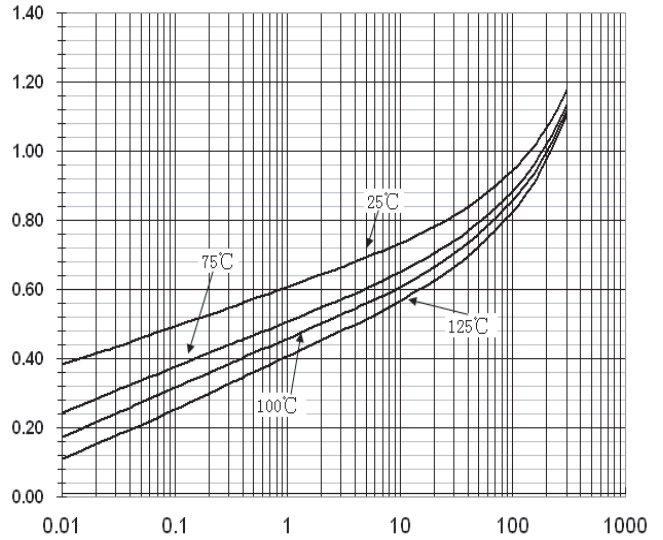
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
$B_V$	Breakdown Voltage	$I_R=100\mu\text{A}$	100		Volts
		$I_R=5\mu\text{A}$	75		
$I_R$	Reverse Leakage Current	$V_R=20\text{V}$		25	nA
		$V_R=75\text{V}$		5	$\mu\text{A}$
$V_F$	Forward Voltage	1N4448WT, 1N914BWT $I_F=5\text{mA}$	0.62	0.72	Volts
		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

## RATING AND CHARACTERISTICS CURVES ( 1N4148WT )

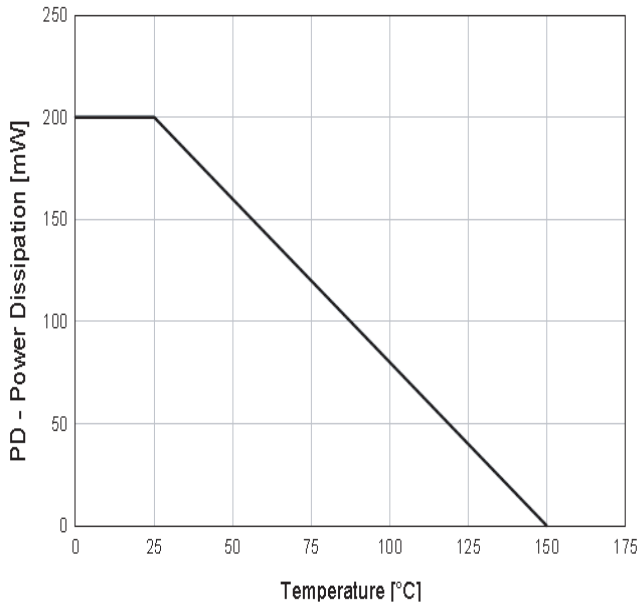
Total Capacitance



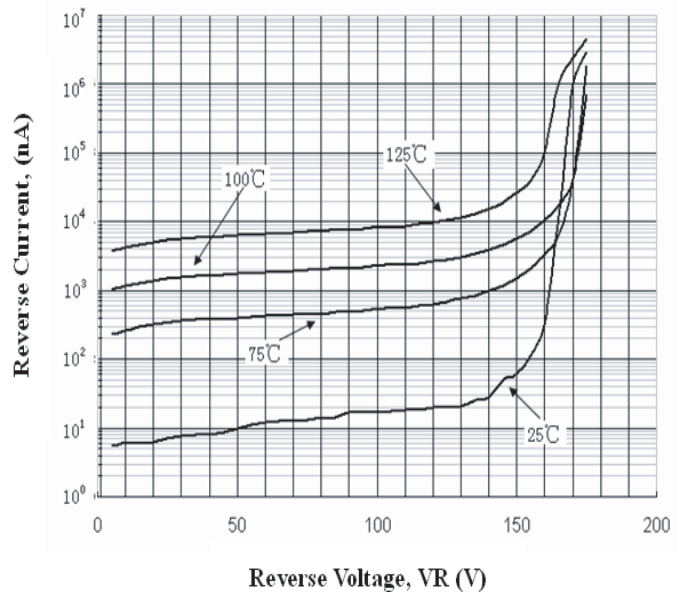
Forward Voltage vs Ambient Temperature



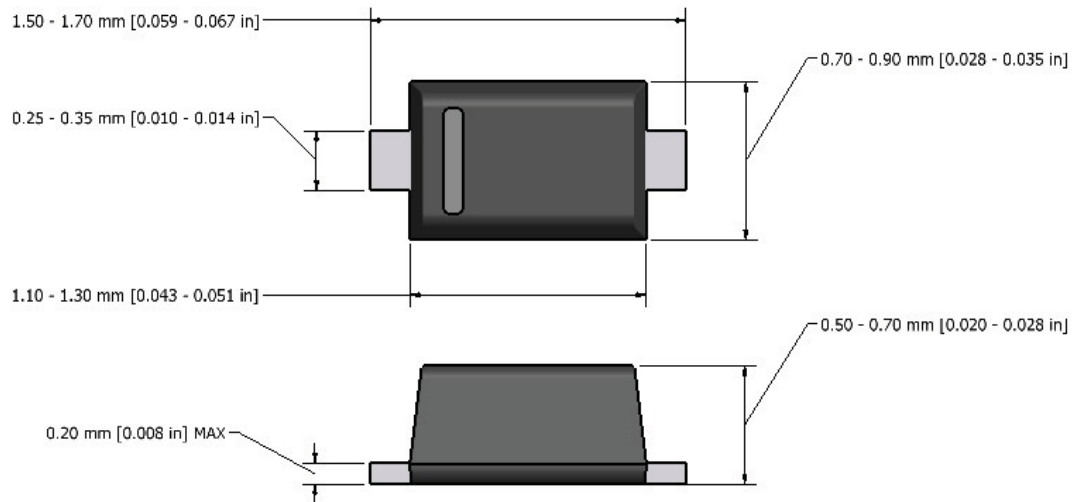
Power Derating Curve



Reverse Current vs Reverse Voltage



## Flat Lead SOD-523 Package Outline



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

## PACKAGING OF DIODE

### REEL PACK

PACKAGE	PACKING CODE	REEL ( EA )	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-523	-T	5,000	---	---	178	386*265*215	180,000	---

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