

**200mW SOD-323 SURFACE MOUNT**  
**Small Outline Gull Wing Lead Plastic Package**  
**Fast Switching Diode**

Green Product

**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	-65 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
$I_{FSM}$	Peak Forward Surge Current (Pulse Width=1us)	2	A

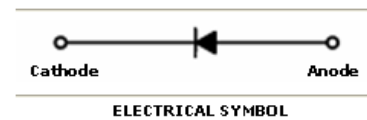
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-323 Gull Wing Lead

**Specification Features:**

- Fast Switching Device ( $T_{RR} < 4.0 \text{ nS}$ )
- General Purpose Diodes
- Gull Wing Lead SOD-323 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Weight: approx. 0.0046g

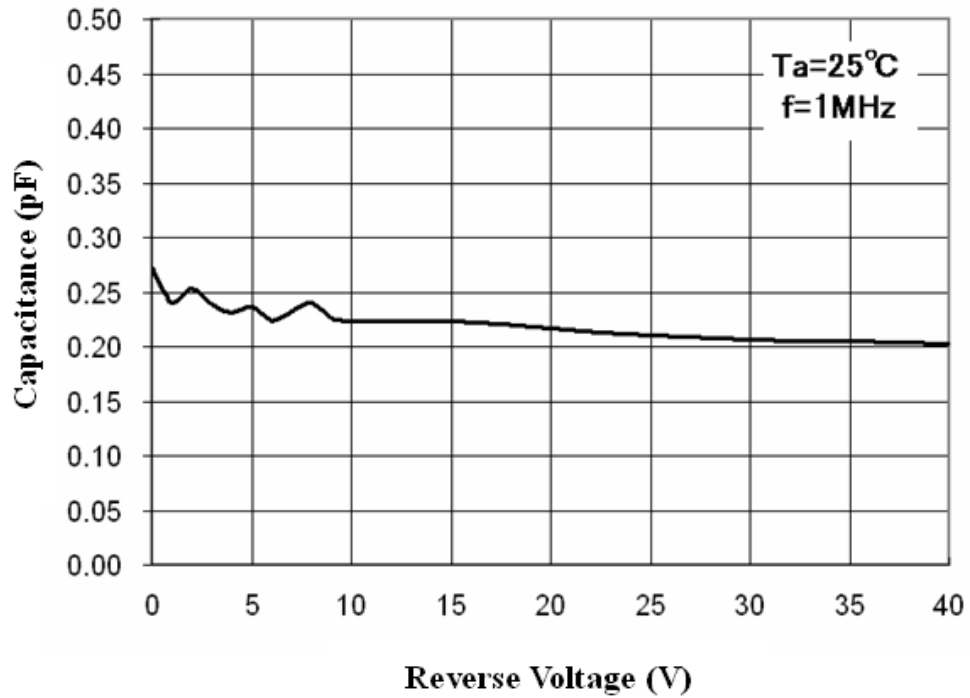
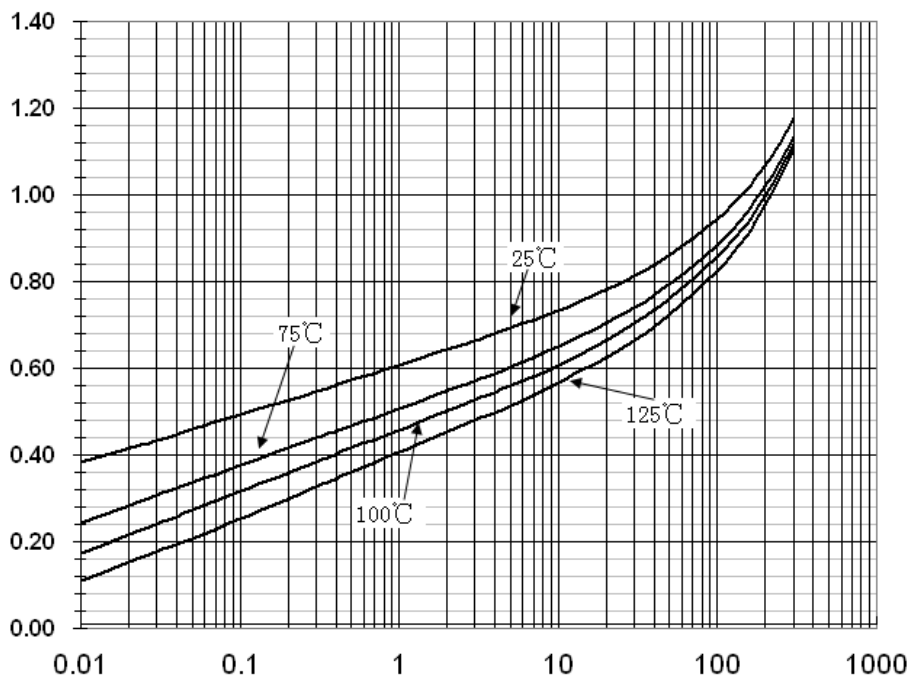


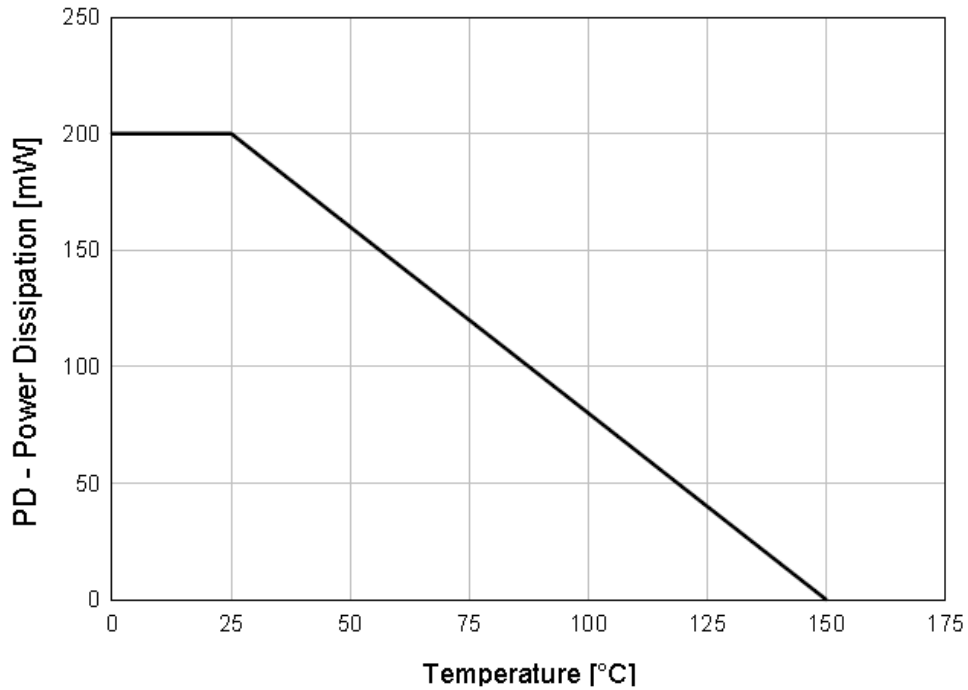
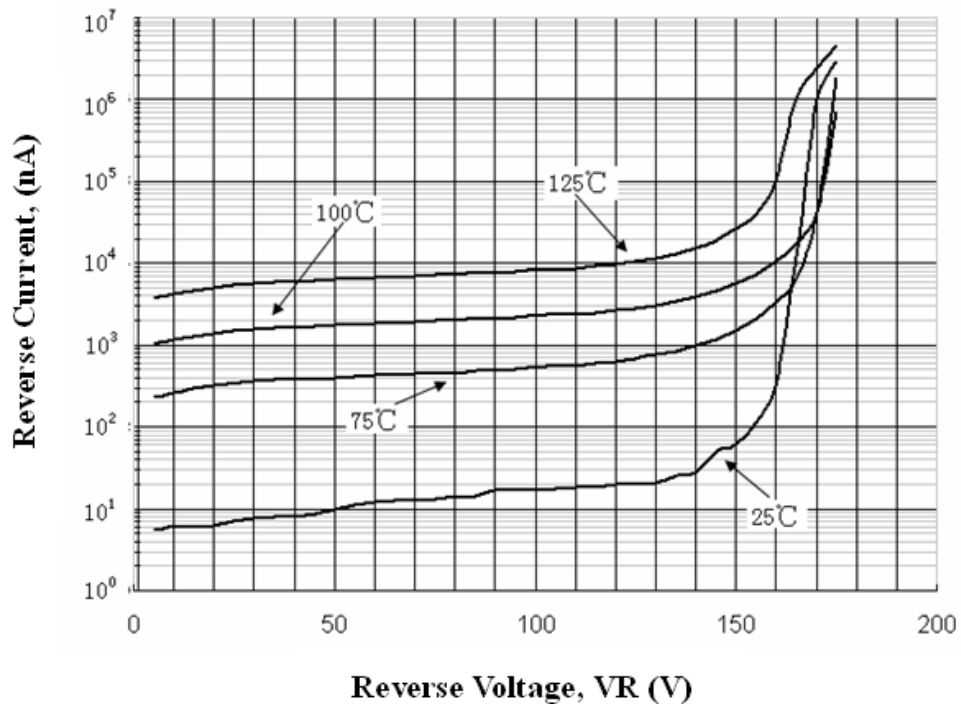
**DEVICE MARKING CODE:**

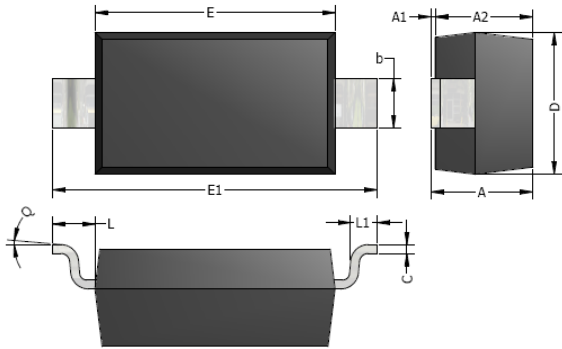
Device Type	Device Marking
1N4148WSG	T4
1N4448WSG	T5

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

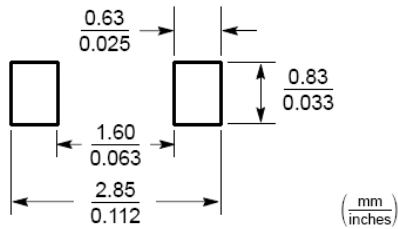
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
$B_V$	Breakdown Voltage	$I_R = 100\mu\text{A}$ $I_R = 5\mu\text{A}$	100 75		Volts
$I_R$	Reverse Leakage Current	$V_R = 20\text{V}$ $V_R = 75\text{V}$		25 5	nA $\mu\text{A}$
$V_F$	Forward Voltage	1N4448WSG $I_F = 5\text{mA}$ 1N4148WSG $I_F = 10\text{mA}$ 1N4448WSG $I_F = 100\text{mA}$	0.62	0.72 1.0 1.0	Volts
$T_{RR}$	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**


**SOD-323 Gull Wing Lead Package Outline**


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.80	1.00	0.031	0.039
A1	0.00	0.10	0.000	0.004
A2	0.80	0.90	0.031	0.035
b	0.30	0.40	0.012	0.016
c	0.08	0.15	0.003	0.006
D	1.20	1.40	0.047	0.055
E	1.60	1.80	0.063	0.071
E1	2.50	2.70	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.25	0.40	0.010	0.016
θ	0°	8°	0°	8°

**Typical Soldering Pattern:**


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

**NOTICE**

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