

## 1N4448WS SURFACE MOUNT FAST SWITCHING DIODE



### Features

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Schematic & Pin Configuration



### Mechanical Characteristics

- Case: SOD-323, Molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.04 grams(approx)

### Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

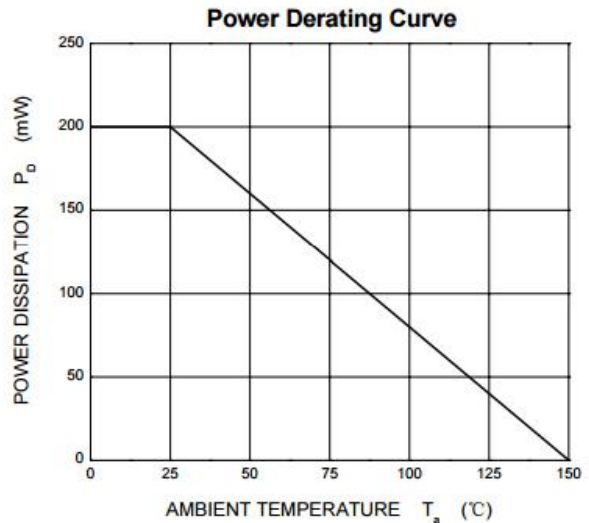
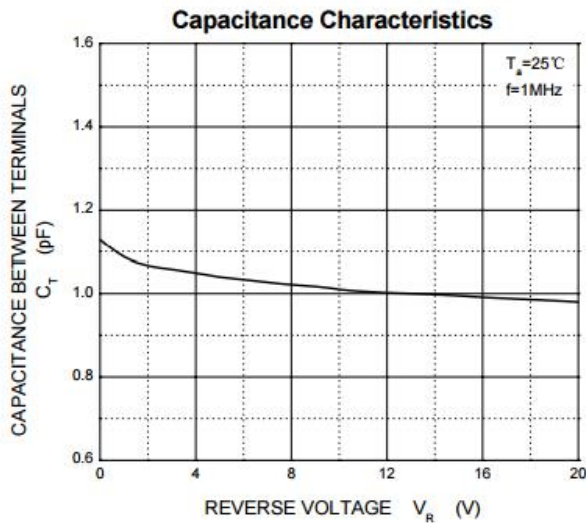
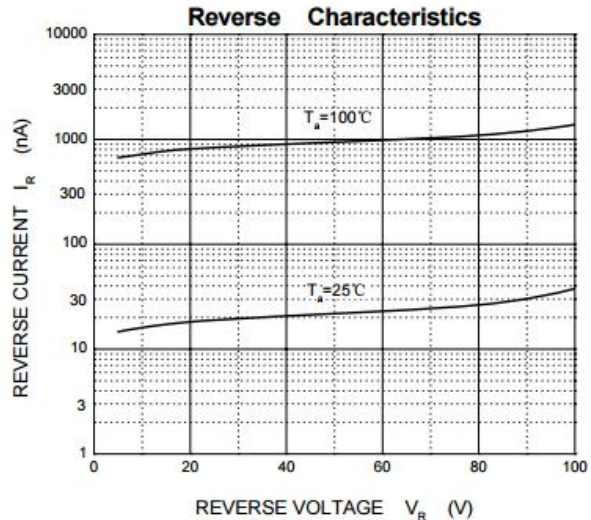
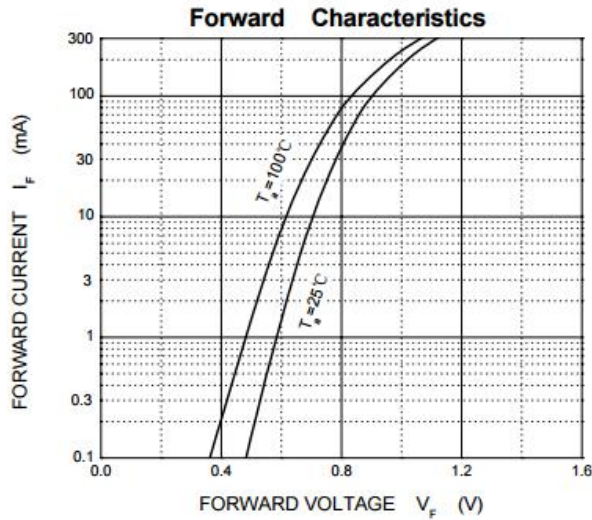
Characteristic	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	$I_{FM}$	500	mA
Average Rectified Output Current	$I_o$	250	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{FSM}$	2.0	A
Power Dissipation	$P_D$	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^{\circ}\text{C}$

**Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

Characteristics	Symbol	Condition	Min.	Max.	Units
Forward Voltage Drop*	V <sub>F1</sub>	@ 5mA, Pulse, T <sub>J</sub> = 25 °C @ 10mA, Pulse, T <sub>J</sub> = 25 °C @ 100mA, Pulse, T <sub>J</sub> = 25 °C @ 150mA, Pulse, T <sub>J</sub> = 25 °C	0.62	0.72 0.855 1.0 1.25	V
Reverse Current*	I <sub>R1</sub>	@V <sub>R</sub> = 75V, Pulse, T <sub>J</sub> = 25 °C	-	2.5	μA
	I <sub>R2</sub>	@ V <sub>R</sub> = 20V, Pulse, T <sub>J</sub> = 25°C	-	25	nA
Capacitance between terminals	C <sub>T</sub>	@V <sub>R</sub> = 0 V, T <sub>c</sub> =25, f <sub>SIG</sub> = 1MHz	-	4	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =10mA I <sub>R</sub> = 10mA T <sub>J</sub> = 25 °C I <sub>rr</sub> = 1 mA R <sub>L</sub> =100Ω	-	4	ns

\* Pulse width < 300 μs, duty cycle < 2%

**Ratings and Characteristics Curves**



- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**Ordering Information**

Device	Package	Shipping
1N4448WS	SOD-323 (Pb-Free)	3000pcs / reel

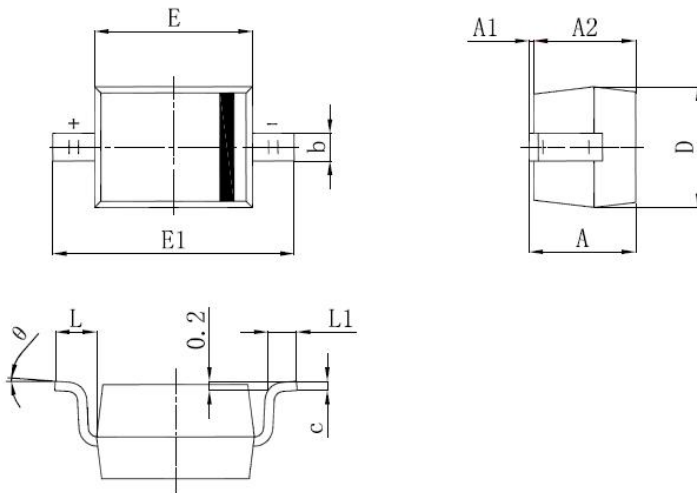
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



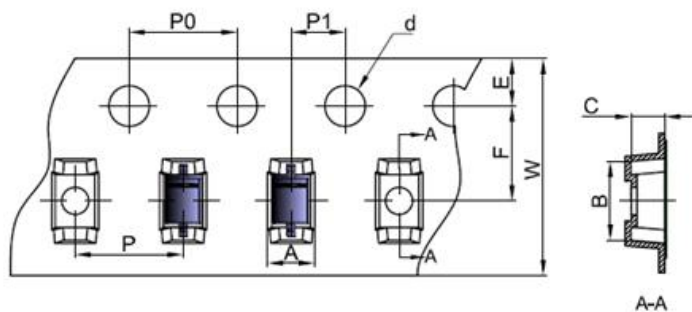
T5 = Marking Code

**Mechanical Dimensions SOD-323**



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	-	1.000	-	0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

**Carrier Tape Specification SOD-323**



SYMB OL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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