

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

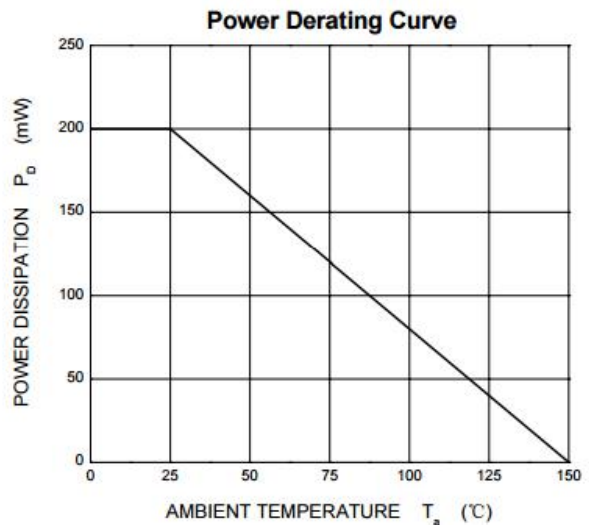
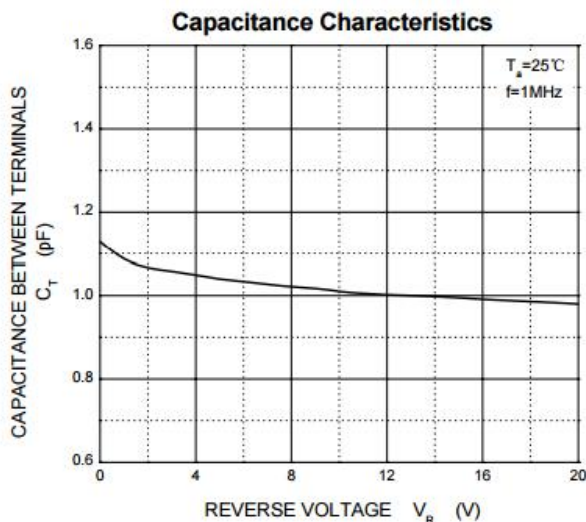
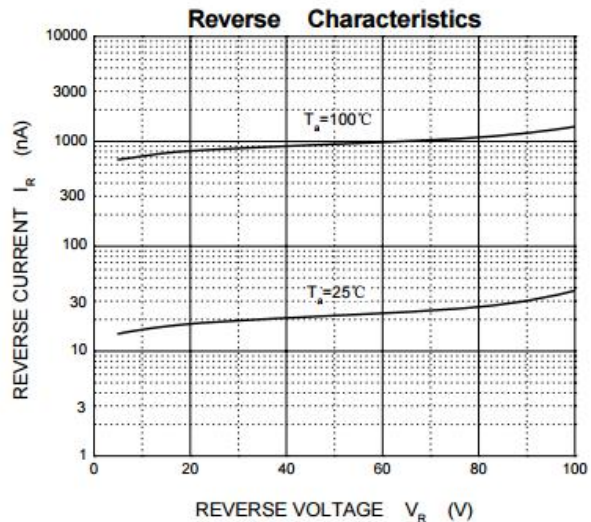
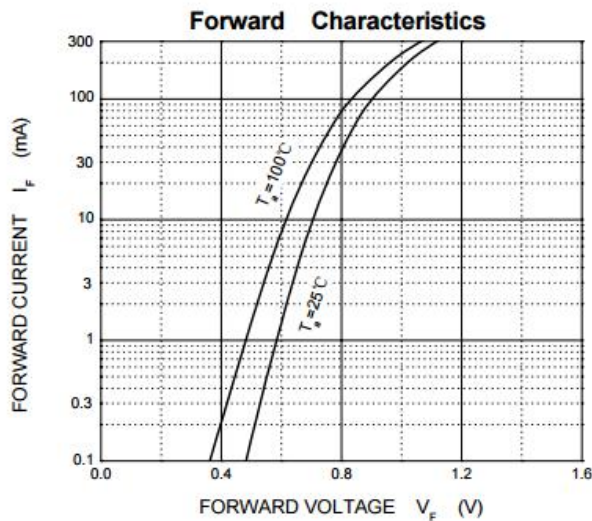
Characteristic	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	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 @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Condition	Min.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 5mA, Pulse, $T_J = 25^\circ\text{C}$ @ 10mA, Pulse, $T_J = 25^\circ\text{C}$ @ 100mA, Pulse, $T_J = 25^\circ\text{C}$ @ 150mA, Pulse, $T_J = 25^\circ\text{C}$	0.62	0.72 0.855 1.0 1.25	V
Reverse Current*	I_{R1}	@ $V_R = 75\text{V}$, Pulse, $T_J = 25^\circ\text{C}$	-	2.5	μA
	I_{R2}	@ $V_R = 20\text{V}$, Pulse, $T_J = 25^\circ\text{C}$	-	25	nA
Capacitance between terminals	C_T	@ $V_R = 0\text{V}$, $T_c=25$, $f_{\text{SIG}} = 1\text{MHz}$	-	4	pF
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}$ $I_R = 10\text{mA}$ $T_J = 25^\circ\text{C}$ $I_{rr}=1\text{mA}$ $R_L=100\Omega$	-	4	ns

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

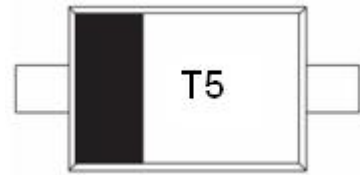
Ratings and Characteristics Curves



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

Ordering Information **Marking Diagram**

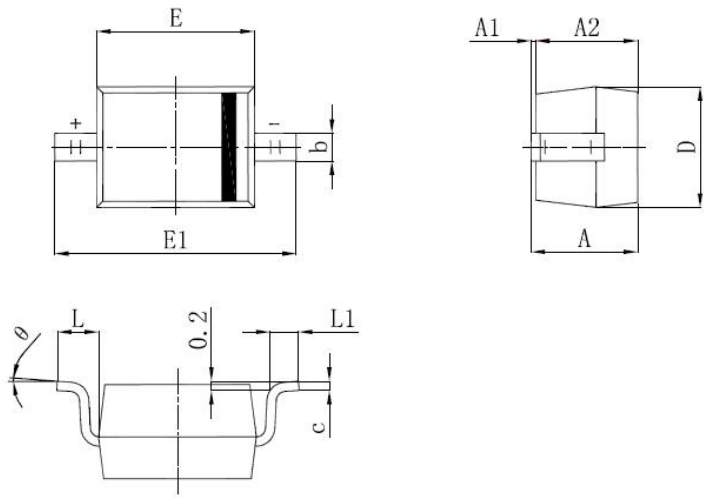
Device	Package	Shipping
1N4448WS	SOD-323 (Pb-Free)	3000pcs / reel



T5 = Marking Code

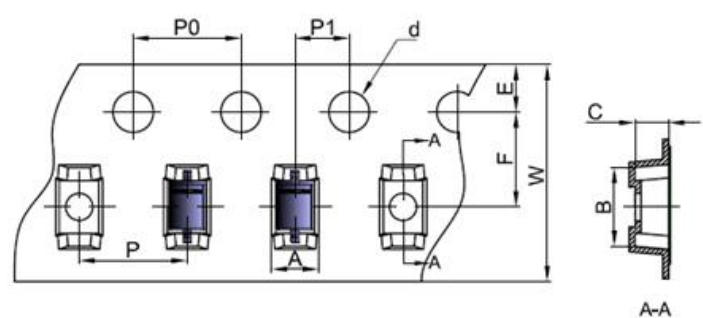
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

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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