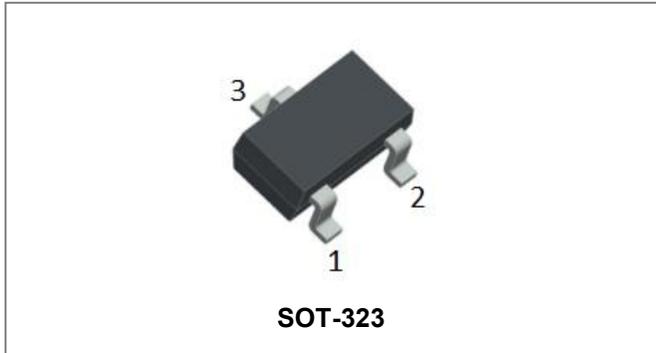


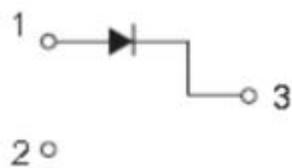
MMBD4448W SURFACE MOUNT FAST SWITCHING DIODE



Features

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance
- 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: SOT-323, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Weight: 0.0052g
- Mounting Position: Any

Maximum Ratings@T_A=25°C unless otherwise specified

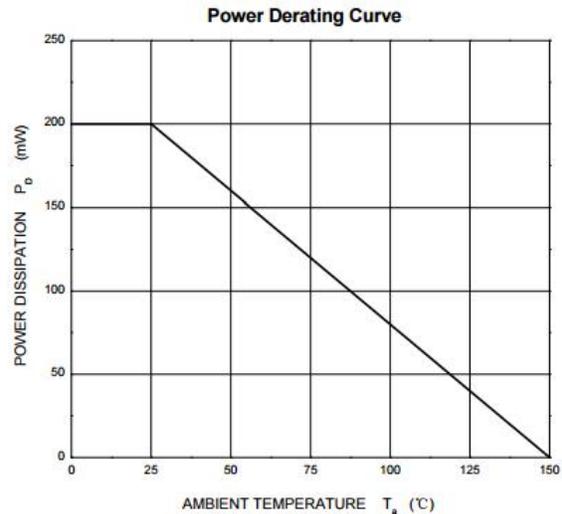
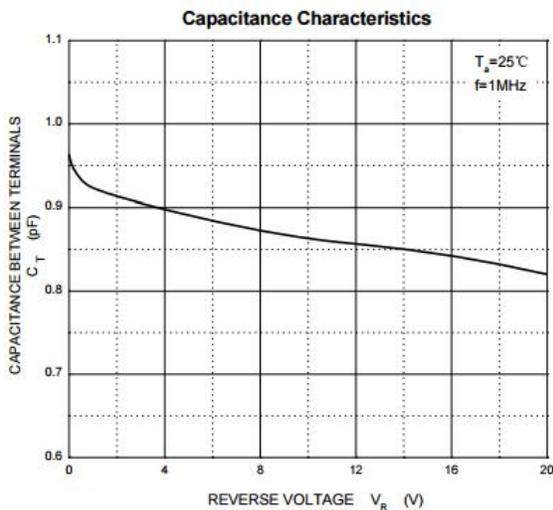
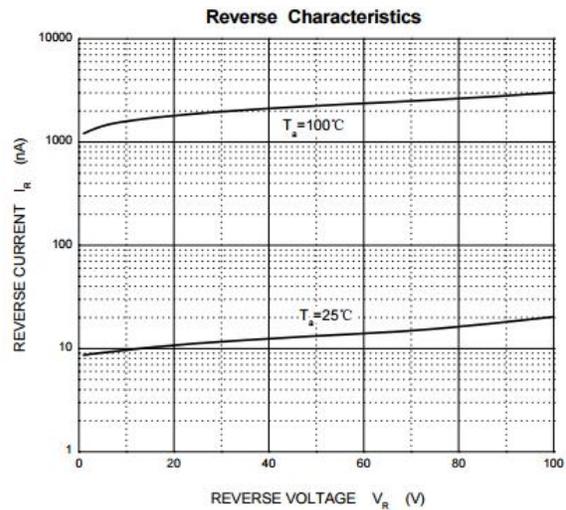
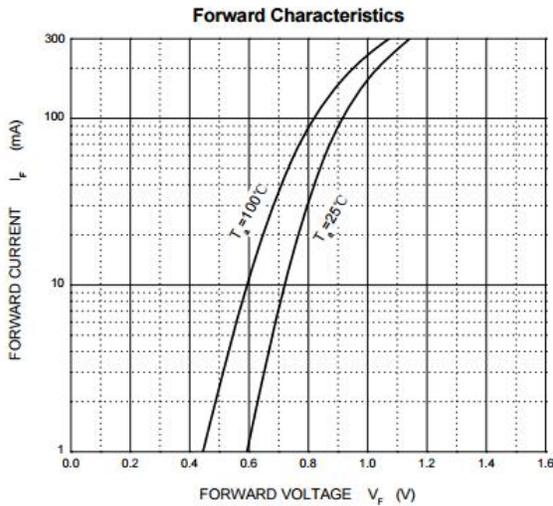
Characteristic	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_o	250	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°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	@ $V_R = 0\text{V}$, $T_C=25^\circ\text{C}$, $f_{\text{SIG}} = 1\text{MHz}$		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 •

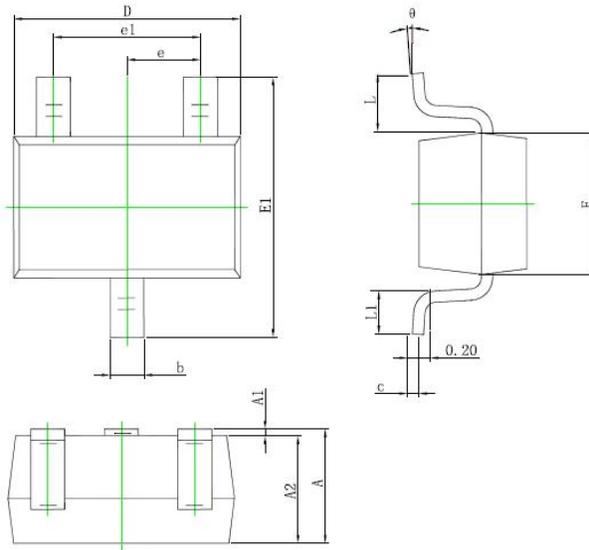
Ordering Information

Device	Package	Shipping
MMBD4448W	SOT-323 (Pb-Free)	3000pcs / reel

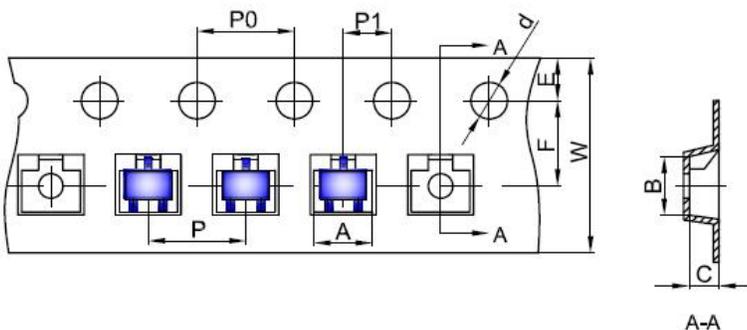
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram


KA3 = Marking Code

Mechanical Dimensions SOT-323


SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Carrier Tape Specification SOT-323


SYMBOL	Millimeters	
	Min.	Max.
A	2.20	2.30
B	2.50	2.60
C	1.14	1.24
d	1.45	1.65
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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