

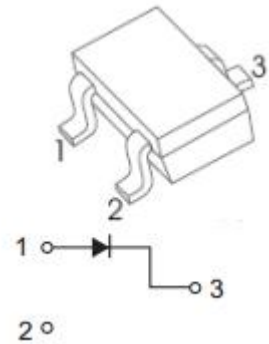
**MMBD4448W SWITCHING DIODE**

**Features:**

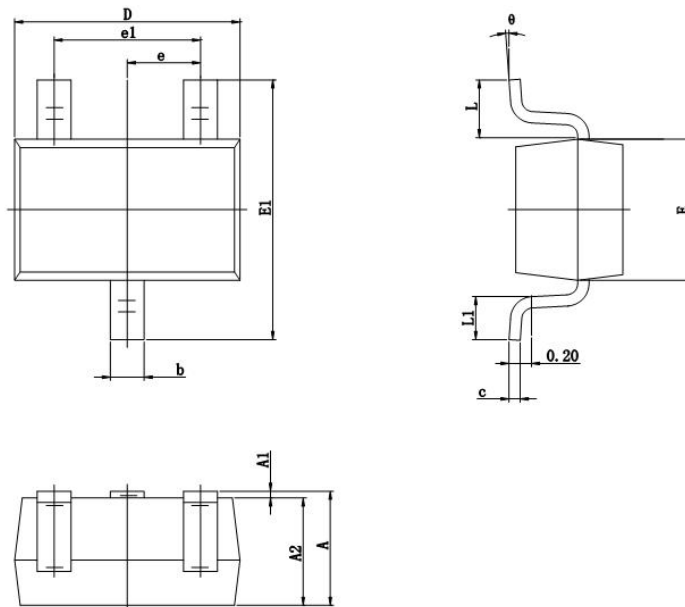
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance

**Mechanical Data:**

- Case: SOT-323, Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: Polarity symbols marked on case
- Marking: KA3



**Mechanical Dimensions: In Inches / mm**



Symbol	Dimensions In Millimeters		Dimensions In 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°

**SOT-323**

- 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
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.

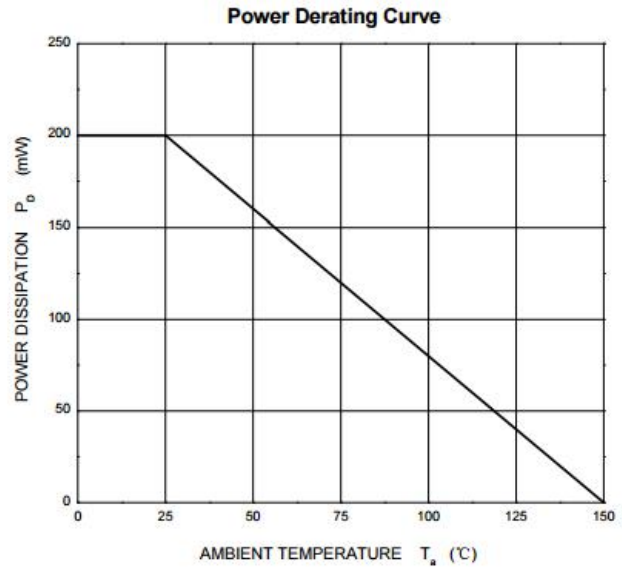
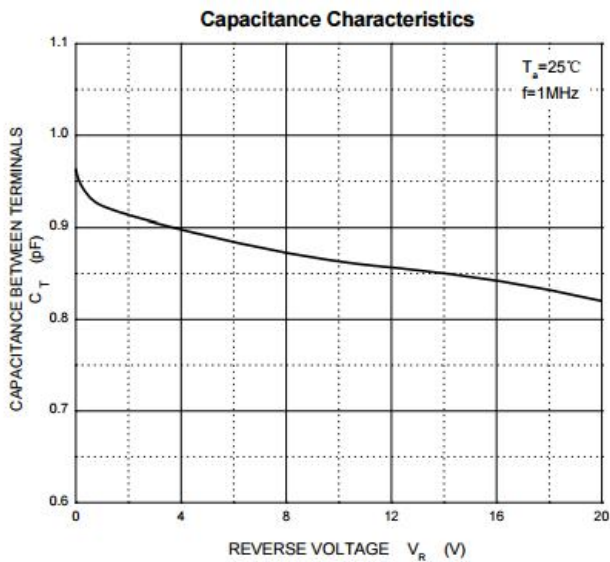
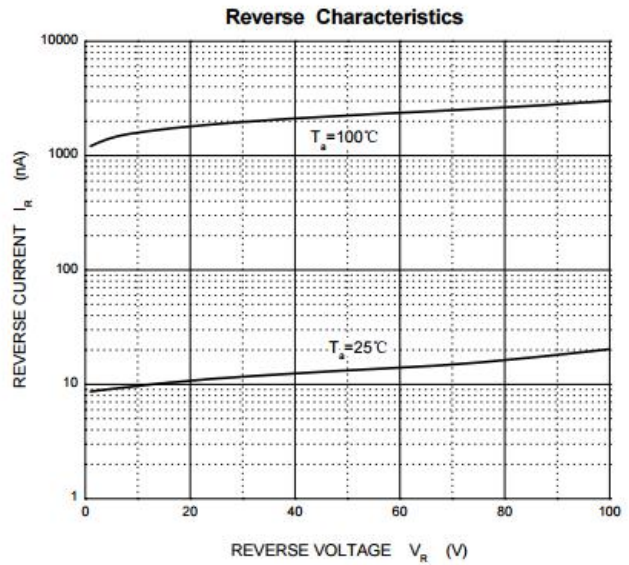
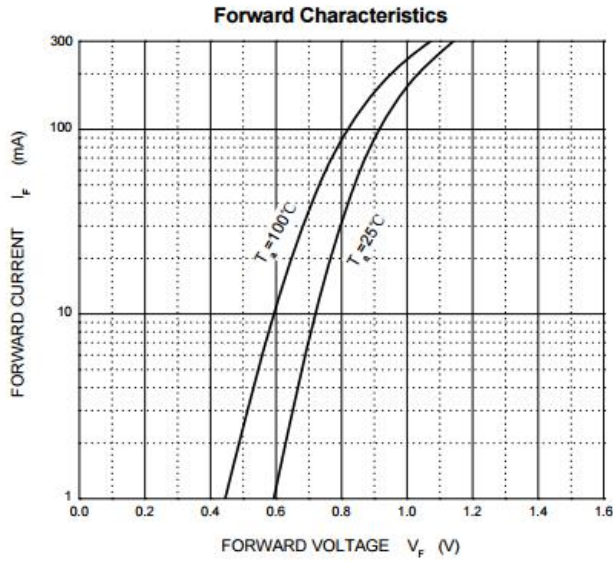
**Maximum Ratings @Ta=25°C**

Characteristic	Symbol	Value	Unit
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 @Ta=25°C**

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

### Typical Characteristics



**DISCLAIMER:**

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..