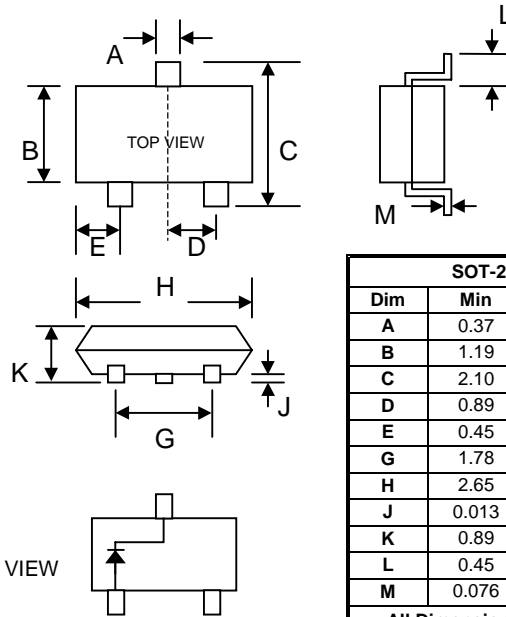


SURFACE MOUNT FAST SWITCHING DIODE

Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material – UL Recognition Flammability Classification 94V-O



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- Marking: A2

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

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current (Note 1)	I_F	300	mA
Average Rectified Output Current (Note 1)	I_O	200	mA
Peak Forward Surge Current (Note 1) @ $t < 1.0\mu\text{s}$	I_{FSM}	2.0	A
Power Dissipation (Note 1)	P_d	350	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Operating 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

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75	—	V	@ $I_{RS} = 100\mu\text{A}$
Forward Voltage	V_F	—	1.0	V	@ $I_F = 10\text{mA}$
Reverse Leakage Current	I_R	—	2.5	μA	@ $V_R = 75\text{V}$
Junction Capacitance	C_j	—	2.0	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	4.0	nS	$I_F = I_R = 10\text{mA}, I_{RR} = 0.1 \times I_R, R_L = 100\Omega$

Note: 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.

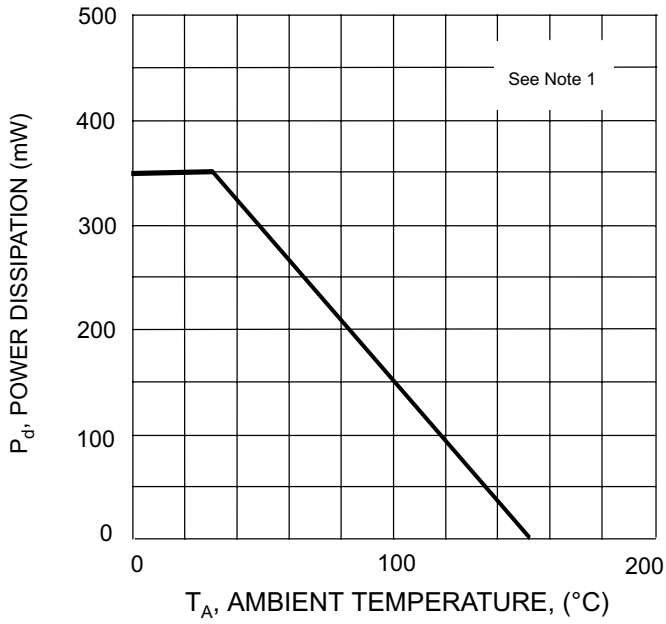


Fig. 1 Power Derating Curve

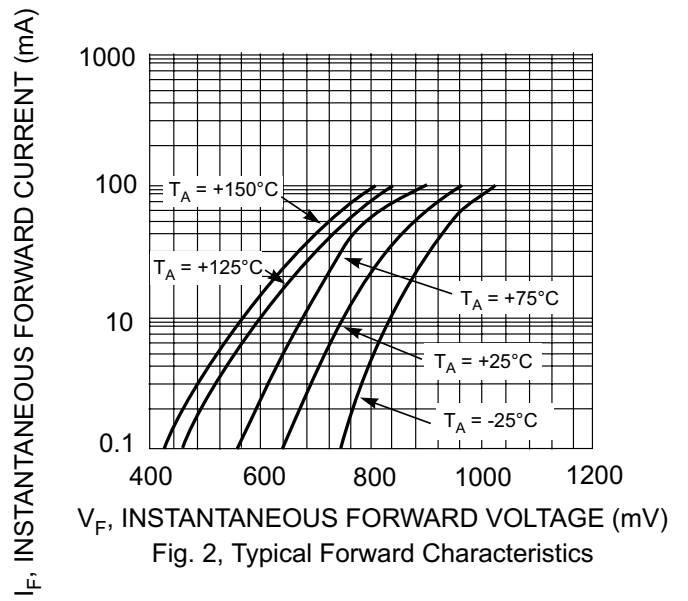


Fig. 2, Typical Forward Characteristics

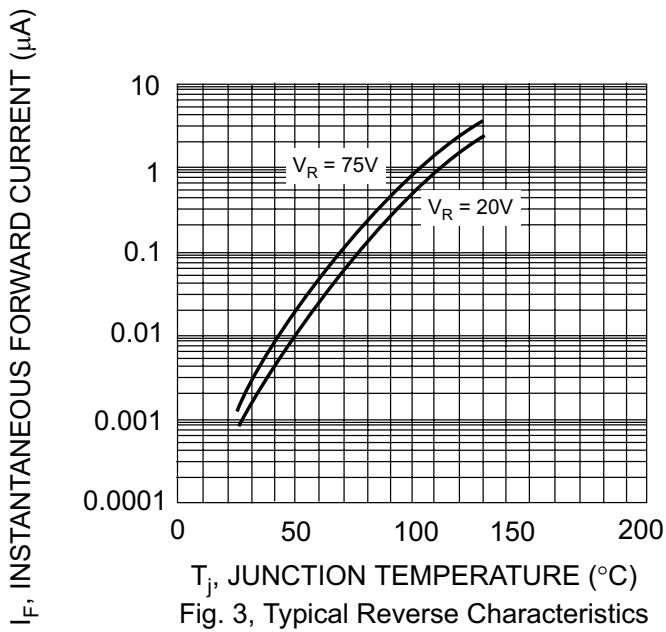


Fig. 3, Typical Reverse Characteristics

ORDERING INFORMATION

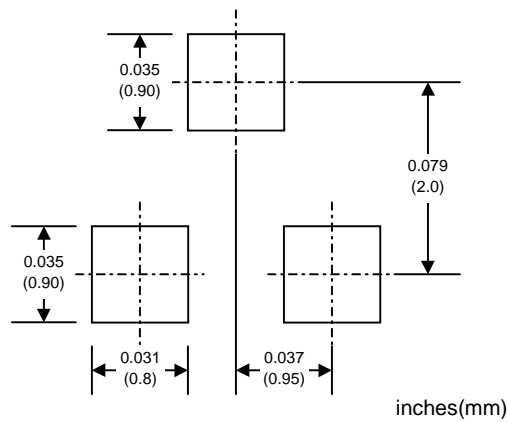
Product No. ♦	Package Type	Shipping Quantity
MMBD4148-T1	SOT-23	3000/Tape & Reel
MMBD4148-T3	SOT-23	10000/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

Phone: 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417

Email: sales@wontop.com

Internet: http://www.wontop.com

We power your everyday.