



MMBD4448HW

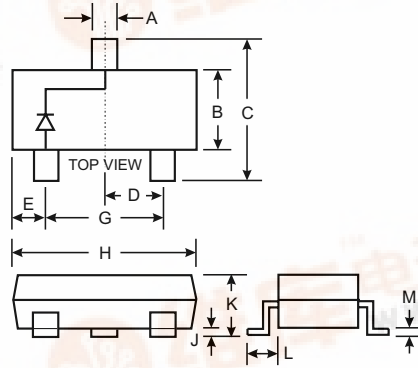
SURFACE MOUNT SWITCHING DIODE

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
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: KA1
- Weight: 0.006 grams (approx.)



SOT-323		
Dim	Min	Max
A	0.30	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	MMBD4448H	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{R(RM)} V _{R(RM)} V _R	80	V
RMS Reverse Voltage	V _{R(RMS)}	57	V
Forward Continuous Current (Note 1)	I _{FM}	500	mA
Average Rectified Output Current (Note 1)	I _O	250	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I _{FSM}	4.0 2.0	A
Power Dissipation (Note 1)	P _d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	80	—	V	I _R = 2.5μA
Forward Voltage (Note 2)	V _{FM}	0.62	0.72 0.855 1.0 1.25	V	I _F = 5.0mA I _F = 10mA I _F = 100mA I _F = 150mA
Peak Reverse Current (Note 2)	I _{RM}	—	100 50 30 25	nA μA μA nA	V _R = 70V V _R = 75V, T _J = 150°C V _R = 25V, T _J = 150°C V _R = 20V
Junction Capacitance	C _j	—	3.5	pF	V _R = 6V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	4.0	ns	V _R = 6V, I _F = 5mA

Notes: 1. Valid provided that terminals are kept at ambient temperature.
2. Short duration test pulse used to minimize self-heating effect.



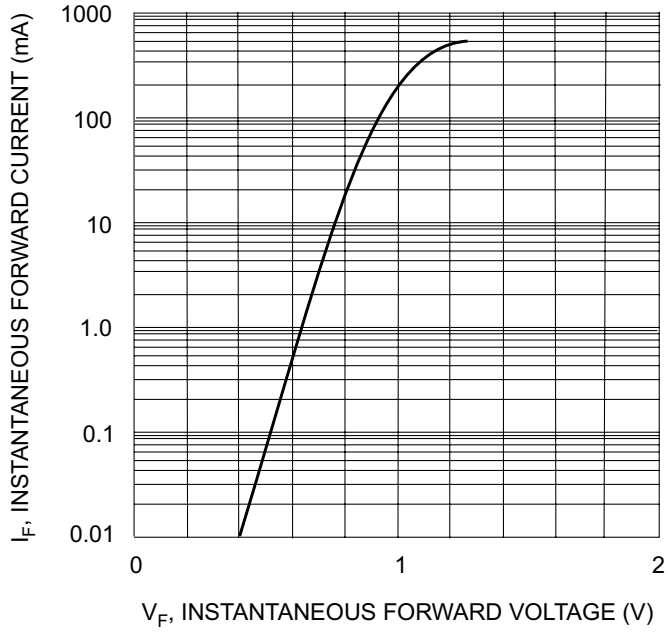


Fig. 1 Forward Characteristics

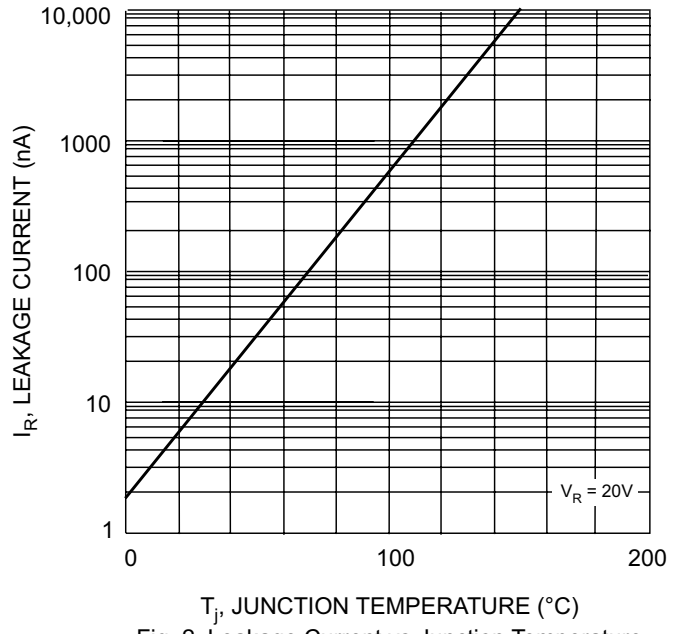


Fig. 2 Leakage Current vs Junction Temperature