

**SURFACE MOUNT  
FAST SWITCHING DIODE**

**REVERSE VOLTAGE – 75 Volts  
FORWARD CURRENT – 0.15 Ampere**

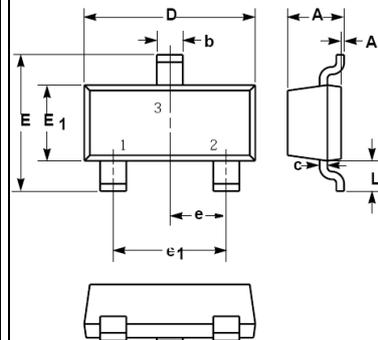
**FEATURES**

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

**MECHANICAL DATA**

- Case: SOT-323 Plastic
- Case material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead free in RoHS 2002/95/EC compliant

**SOT-323**



SOT-323		
Dim.	Min.	Max.
A	0.90	1.10
A1	0.00	0.10
b	0.20	0.40
c	0.08	0.15
D	2.00	2.20
E	2.15	2.45
E1	1.15	1.35
e	0.65 Typ.	
e1	1.20	1.40
L	0.525 Ref.	
Dimensions in millimeter		

**Maximum Ratings & Thermal Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified**

Characteristic	Symbol	MMBD4148W	Units
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Repetitive Peak Reverse Voltage	V <sub>R RM</sub>	75	V
Working Peak Reverse Voltage	V <sub>R WM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Forward Continuous Current	I <sub>FM</sub>	300	mA
Average Rectified Output Current	I <sub>O</sub>	150	mA
Non-Repetitive Peak Forward Current	I <sub>FSM</sub>	2	A
		@t=1s	
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	625	°C/W
Operating Temperature Range	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-65~+150	°C

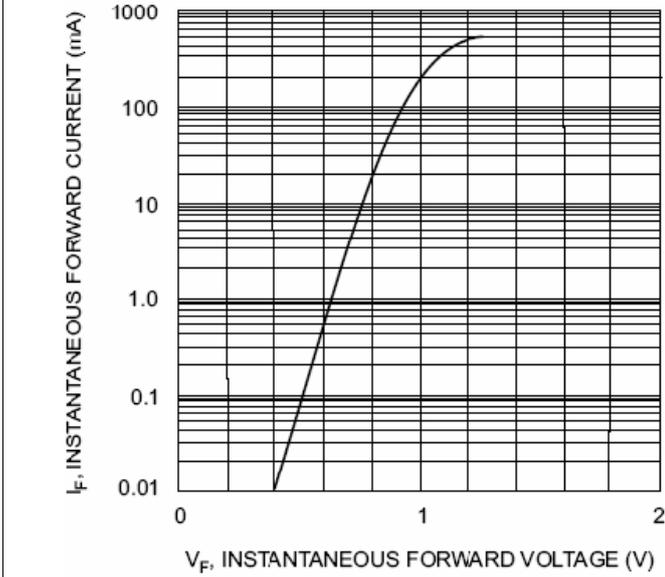
**Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified**

Characteristic	Test Condition	Symbol	MMBD4148W	Unit
Reverse Breakdown Voltage	I <sub>R</sub> = 10uA	V <sub>BR</sub>	75	V
Maximum Forward Voltage	I <sub>F</sub> = 1mA	V <sub>F</sub>	715	mV
	I <sub>F</sub> = 10mA		855	
	I <sub>F</sub> = 50mA		1000	
	I <sub>F</sub> = 150mA		1250	
Maximum DC Reverse Current at Rated DC Blocking Voltage	V <sub>R</sub> = 75V	I <sub>R</sub>	1000	nA
	V <sub>R</sub> = 20V		25	
Typical Diode Capacitance	V <sub>R</sub> = 0V, f=1MHz	C <sub>D</sub>	2	pF
Reverse Recovery time	I <sub>rr</sub> =1mA, I <sub>R</sub> =I <sub>F</sub> =10mA R <sub>L</sub> =100Ω	trr	4	ns

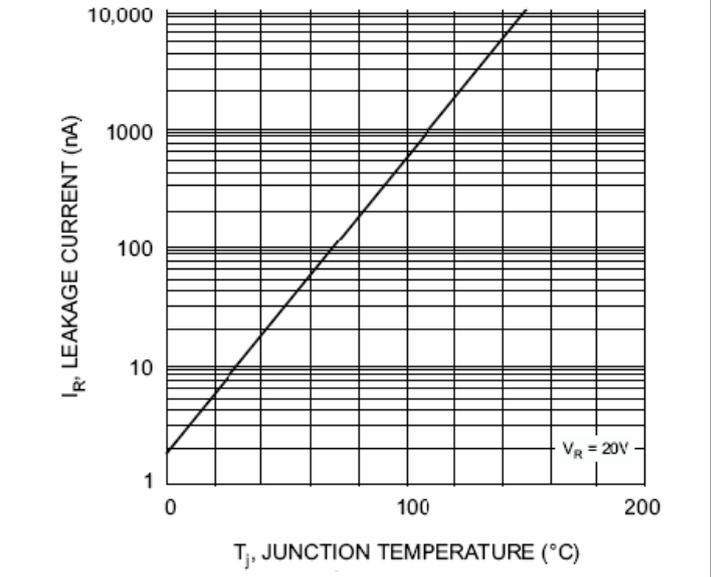
**RATING AND CHARACTERISTIC CURVES**  
**MMBD4148W**



**Fig.1 Typical Forward Characteristics**



**Fig.2 Typical Reverse Characteristics**



**Device Marking :**

Device P/N	Marking code	Equivalent Circuit Diagram
MMBD4148W	A2	

## **Important Notice and Disclaimer**

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