

MBRF2045CT THRU MBRF20200CT

Reverse Voltage - 45 to 200 Volts Forward Current - 20.0 Ampere

SCHOTTKY BARRIER RECTIFIER

Features ITO-220AB

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- ◆ High forward surge current capability
- High temperature soldering guaranteed: 250°C,0.25"(6.35mm) from case for 10 seconds



Mechanical Data

Case: JEDEC ITO-220AB Molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbol marking on body

Mounting Position: Any

Weight: 0.080 ounce, 2.24 grams



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unlss otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MDD	MDD	MDD	MDD	MDD	UNITS		
Marking Code		MBRF 2045CT	MBRF 2060CT	MBRF 20100CT	MBRF 20150CT	MBRF 20200CT			
Maximum repetitive peak reverse voltage	Vrrm	45	60	100	150	200	V		
Maximum RMS voltage	VRMS	32	42	70	135	140	V		
Maximum DC blocking voltage	VDC	45	60	100	150	200	V		
Maximum average forward rectified current (see fig.1)	I(AV)	20.0							
Peak forward surge current 8.3ms single half									
sine-wave superimposed on rated load (JEDEC Method)	lfsm	150							
Maximum instantaneous forward voltage at 10.0A	VF	0.65	0.75	0.85	5 0.95				
Maximum DC reverse current Ta=25°C			1.0	0.	0.2				
at rated DC blocking voltage T _A =100℃	l _R	15.0	50.0		50.	- mA			
Typical thermal resistance (NOTE 2)	Rejc	2.0 1.5				5	°C/W		
Operating junction temperature range	Тı	-55 to +150							
storage temperature range	Тѕтс	-55 to +150							

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case.



MBRF2045CT THRU MBRF20200CT

Reverse Voltage - 45 to 200 Volts Forward Current - 20.0 Ampere

Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

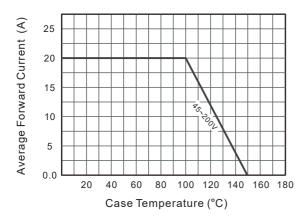


Fig.2 Typical Reverse Characteristics

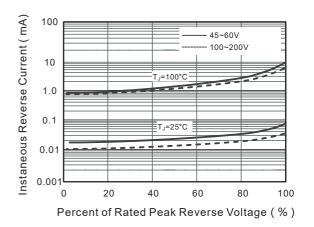


Fig.3 Typical Forward Characteristic(per leg)

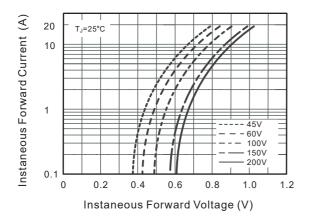
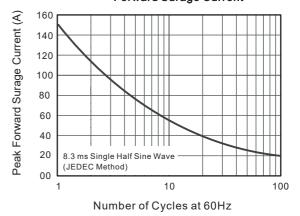


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current



The curve above is for reference only.

http://www.microdiode.com Rev:2025A4 Page :2

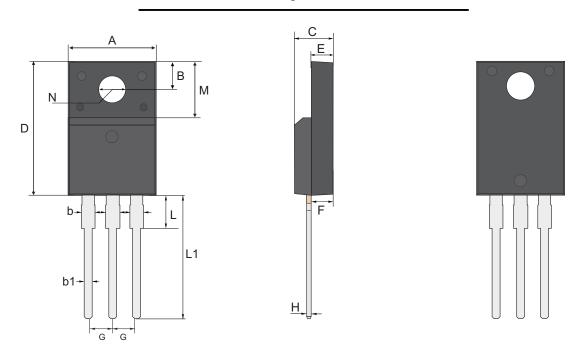


MBRF2045CT THRU MBRF20200CT

Reverse Voltage - 45 to 200 Volts Forward Current - 20.0 Ampere

Outlitne

ITO-220AB Package Outline Dimensions



UN	ΝIT	Α	В	b	b1	O	D	Ш	F	G	Η	L	L1	М	N
mm	max	10.66	3.5	1.5	1.0	4.9	16.37	2.9	3.55	2.75	0.70	4.0	14.3	7.2	3.5
	min	9.6	2.54	1.1	0.5	4.3	14.7	2.34	2.56	2.34	0.30	2.3	12.0	6.2	3.0

Important Notice and Disclaimer

Microdiode Electronics (Shenzhen) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Microdiode Electronics (Shenzhen) makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does Microdiode Electronics (Shenzhen) assume any liability for application assistance or customer product design. Microdiode Electronics (Shenzhen) does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Microdiode Electronics (Shenzhen).

Microdiode Electronics (Shenzhen) products are not authorized for use as critical components in life support devices or systems without express written approval of Microdiode Electronics (Shenzhen).

http://www.microdiode.com Rev:2025A4 Page :3