

MBRF2040CT-HF Thru. MBRF20200CT-HF

Reverse Voltage: 40 to 200 V

Forward Current: 20 A

RoHS Device

Halogen Free

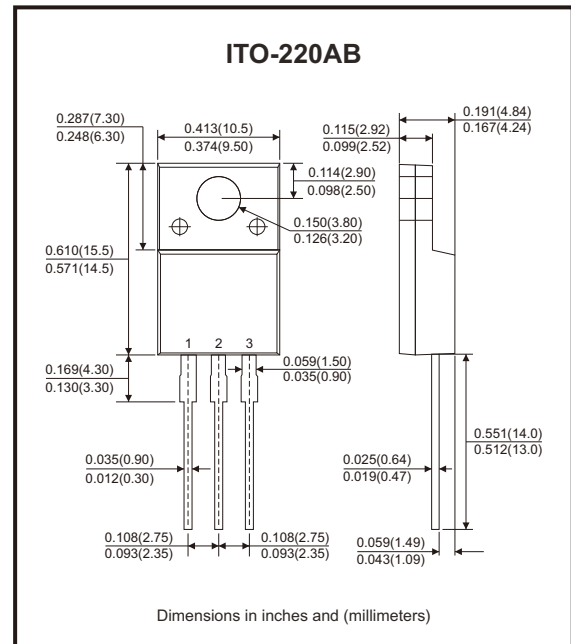


Features

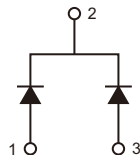
- Plastic package has underwrites laboratory flammability classification 94V-0. Flame retardant epoxy molding compound.
- Metal silicon junction, majority carrier conduction.
- Low power loss, high efficiency.
- High current capability.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.

Mechanical data

- Case: ITO-220AB, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: As marked.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings and Electrical Characteristics (at $T_A=25^{\circ}\text{C}$, unless otherwise specified)

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

Parameter	Symbol	MBRF2040CT -HF	MBRF2060CT -HF	MBRF20100CT -HF	MBRF20150CT -HF	MBRF20200CT -HF	Unit
Max. recurrent peak reverse voltage	V _{RRM}	40	60	100	150	200	V
Max. RMS voltage	V _{RMS}	28	42	70	105	140	V
Max. DC blocking voltage	V _{DC}	40	60	100	150	200	V
Max. average forward current (see Fig.1)	I _{F(AV)}	20					A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150					A
Max. forward voltage at 10A, per leg	V _F	0.7	0.8	0.85	0.92		V
Max. DC reverse current at T _J =25°C Rated DC blocking voltage T _J =125°C	I _R	0.05 20		0.02 20			mA
Typical thermal resistance	R _{θJC}	2					°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-50 to +150			-55 to +175		°C

Rating and Characteristics Curves (MBRF2040CT-HF Thru. MBRF20200CT-HF)

Fig.1 - Forward Current Derating Curve

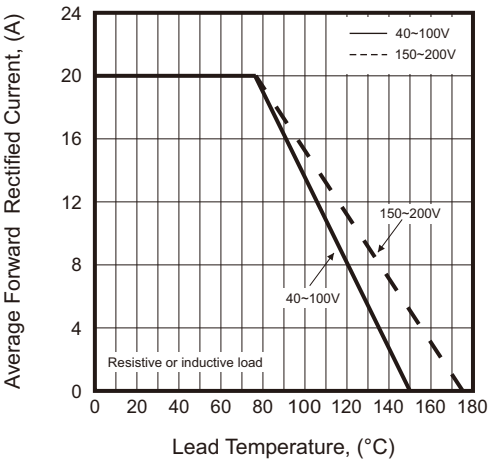


Fig.2 - Maximum Non-Repetitive Surge Current

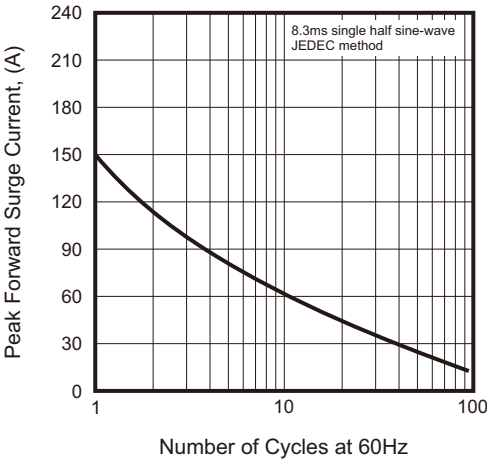


Fig.3 - Typical Reverse Characteristics

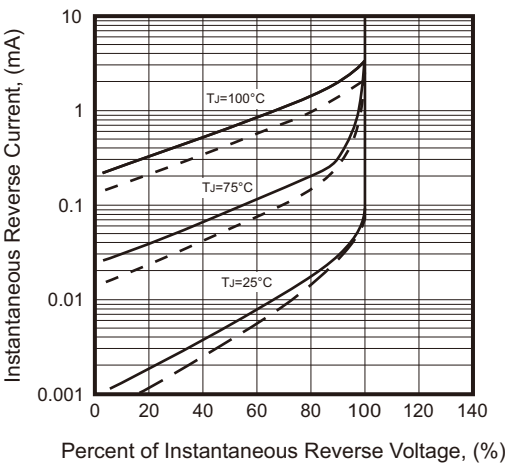
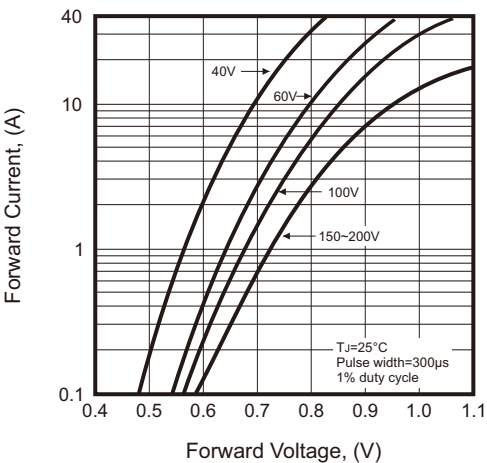
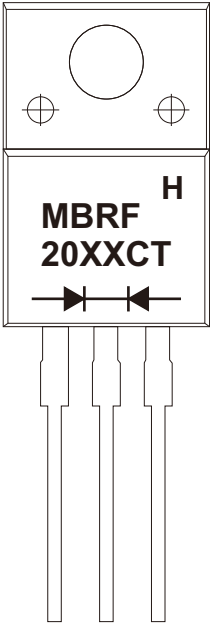


Fig.4 - Typical Instantaneous Forward Characteristics



Marking Code

Part Number	Marking Code
MBRF2040CT-HF	MBRF2040CT
MBRF2060CT-HF	MBRF2060CT
MBRF20100CT-HF	MBRF20100CT
MBRF20150CT-HF	MBRF20150CT
MBRF20200CT-HF	MBRF20200CT



xx/xxx = Marking code

Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
ITO-220AB	50	1,000