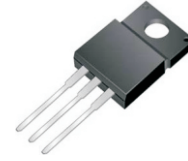


## MBR20H100FCT-G Thru. MBR20H200FCT-G

Reverse Voltage: 100 to 200 V

Forward Current: 20 A

RoHS Device

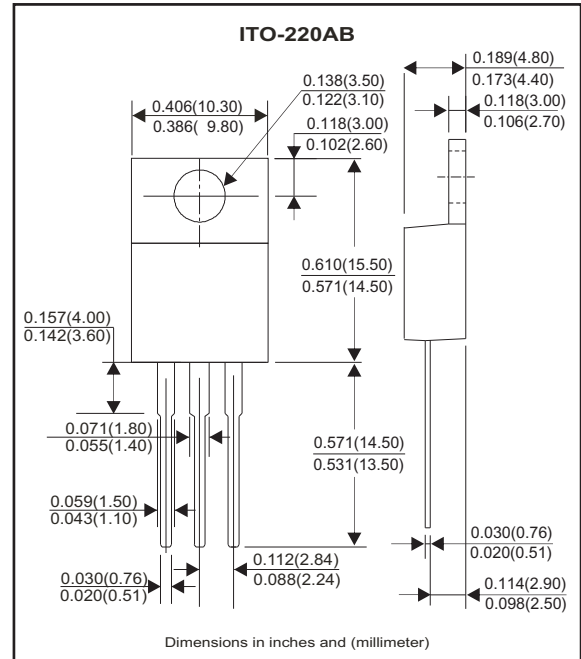


### Features

- Plastic material used carries underwriters laboratory laboratory classifications 94V-0.
- Low power loss high efficiency.
- High current capability, low forward voltage drop.
- High surge capacity.
- For use in power supply-output rectification, power management, instrumentation.
- Guarding for overvoltage protection.
- High temperature soldering guaranteed: 260°C/10 seconds, 0.25"(6.35mm) from case.

### Mechanical Data

- Case: JEDEC ITO-220AB, molded plastic body.
- Terminals: Pure tin plated, lead free. Solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting position: Any
- Mounting torque: 5in. -1bs.max
- Weight: 2.24 grams



### Electrical Characteristics (at TA=25°C unless otherwise noted)

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load derate current by 20%.

Parameter	Symbol	MBR 20H100FCT-G	MBR 20H150FCT-G	MBR 20H200FCT-G	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	150	200	V
Maximum Average Forward Rectified Current @ Tc=125°C	I <sub>(AV)</sub>	20.0			A
Peak repetitive forward current (rated VR, square wave, 20KHZ) at Tc=125°C	I <sub>FRM</sub>	20.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load(JEDEC Method)	I <sub>FSM</sub>	150			A
Peak Repetitive Reverse Surge Current (Note 1)	I <sub>RRM</sub>	1.0		0.5	A
Maximum Instantaneous forward voltage at: (Note 2)	I <sub>F</sub> =10A@ T <sub>J</sub> = 25°C	0.85	0.88		V
	I <sub>F</sub> =10A@ T <sub>J</sub> =125°C	0.75	0.75		
	I <sub>F</sub> =20A@ T <sub>J</sub> = 25°C	0.95	0.97		
	I <sub>F</sub> =20A@ T <sub>J</sub> =125°C	0.85	0.85		
Maximum Instantaneous reverse current @ Tc= 25°C at Rate DC blocking voltage @ Tc=125°C at (Note 2)	I <sub>R</sub>	5			µA
		2			mA
Voltage rate kf change (Rated VR)	dV/dt	10000			V/µS
Maximum Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	1.50			°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 to +175			°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +175			°C

NOTES:

- 2.0µs Pulse Width, f=1.0 KHz.
- Pulse test: 300µs pulse width, 1% duty cycle.
- Thermal Resistnce from junction to case per leg, Mount on heatsink size of 2in\*3in\*0.25in Al-plate.

Company reserves the right to improve product design, functions and reliability without notice.

REV:B

## Rating and Characteristics Curves (MBR20H100FCT-G Thru. MBR20H200FCT-G)

Fig.1- Forward Current Derating Curve

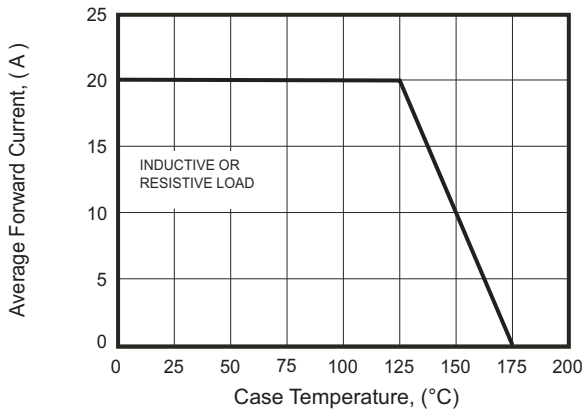


Fig.2- Maximum Non-Repetitive Surge Current

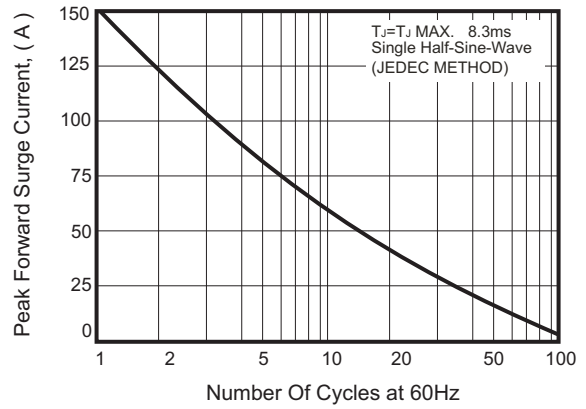


Fig.3 - Typical Instantaneous Forward Characteristics

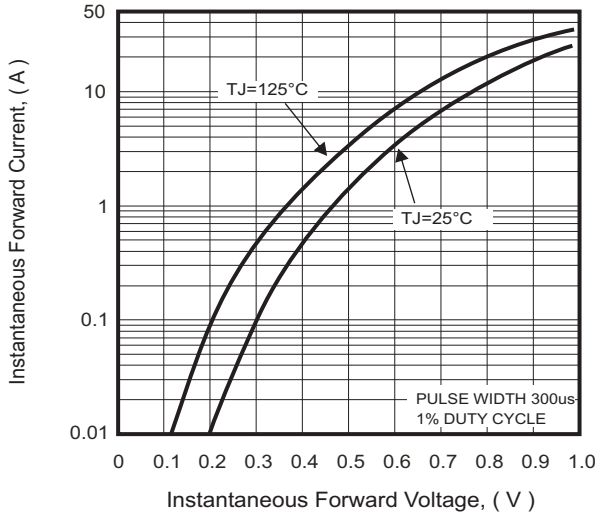


Fig.4- Typical Revers Characteristics

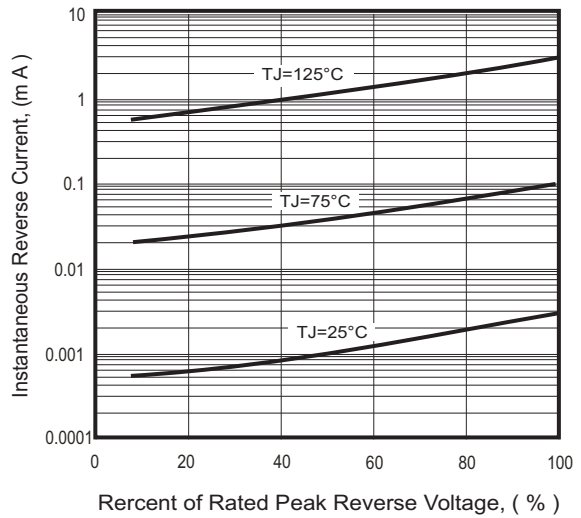


Fig.5- Typical Junction Capacitance

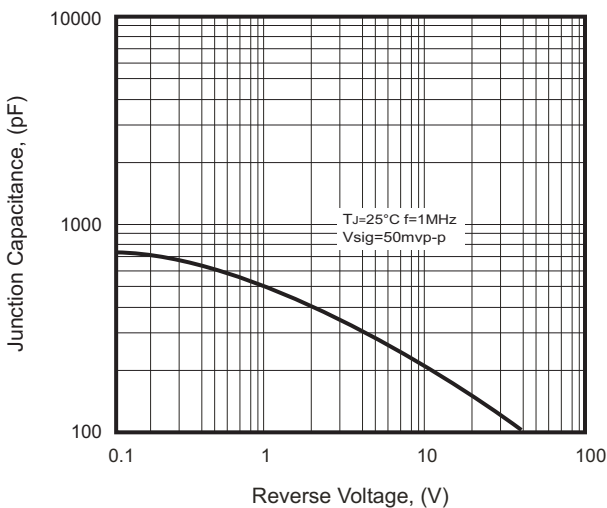
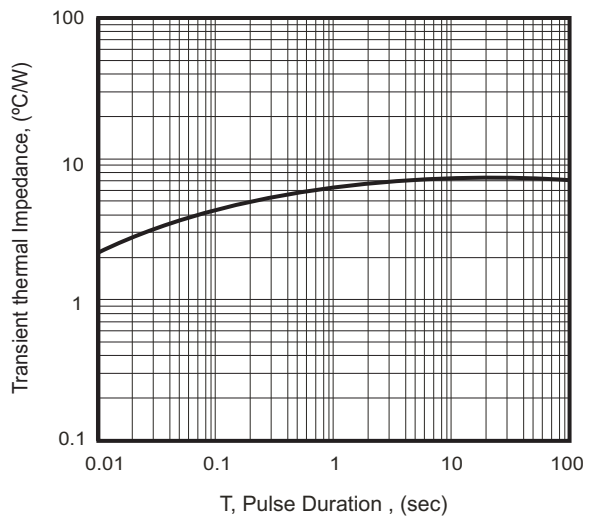


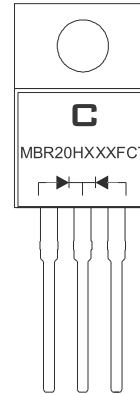
Fig.6- Typical Transient thermal impedance



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## Marking Code

Part Number	Marking code
MBR20H100FCT-G	MBR20H100FCT
MBR20H150FCT-G	MBR20H150FCT
MBR20H200FCT-G	MBR20H200FCT



XXX = Product type marking code  
 C = Comchip Logo

## Standard Packaging

Case Type	TUBE PACK	
	TUBE ( pcs )	BOX ( pcs )
ITO-220AB	50	2,000