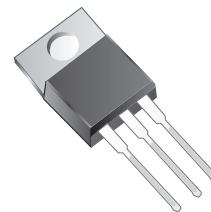


MBR20H100FCT-G Thru. MBR20H200FCT-G

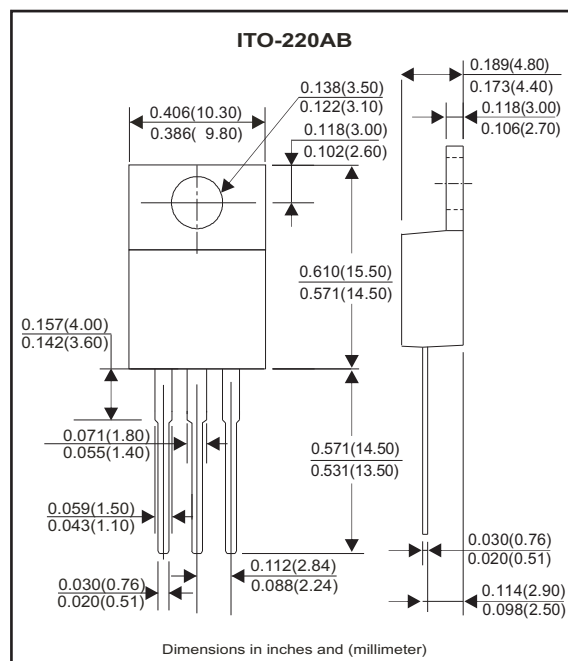
Reverse Voltage: 100 to 200 V
Forward Current: 20 A
RoHS Device


Features

- Plastic material used carries underwriters laboratory laboratory classifications 94V-0.
- Guard ring for transient protection.
- 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 $T_A=25^\circ\text{C}$ 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 20H100FC-G	MBR 20H150FCT-G	MBR 20H200FCT-G	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	150	200	V
Maximum RMS Voltage	V_{RMS}	70	105	14	V
Maximum DC Blocking Voltage	V_{DC}	100	150	200	V
Maximum Average Forward Rectified Current @ $T_C=125^\circ\text{C}$	$I_{(AV)}$	20.0			A
Peak repetitive forward current (rated VR, square wave, 20KHZ) at $T_C=125^\circ\text{C}$	I_{FRM}	20.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I_{FSM}	150			A
Peak Repetitive Reverse Surge Current (Note 1)	I_{RRM}	1.0		0.5	A
Maximum Instantaneous forward voltage at: forward voltage at: (Note 2)	IF=10A@ $T_J=25^\circ\text{C}$	V _F	0.85	0.88	V
	IF=10A@ $T_J=125^\circ\text{C}$		0.75	0.75	
	IF=20A@ $T_J=25^\circ\text{C}$		0.95	0.97	
	IF=20A@ $T_J=125^\circ\text{C}$		0.85	0.85	
Maximum Instantaneous reverse current @ $T_C=25^\circ\text{C}$ at Rate DC blocking voltage @ $T_C=125^\circ\text{C}$ at (Note 2)	I_R	5			μA
		2			mA
Voltage rate kf change (Rated VR)	dV/dt	10000			V/ μS
Maximum Typical Thermal Resistance (Note3)	$R_{\theta JC}$	1.50			$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-65 to +175			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +175			$^\circ\text{C}$

NOTES:

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

RATING AND CHARACTERISTIC CURVES (MBR20H100FCT-G Thru. MBR20H200FCT-G)

FIG.1- Forward Current Derating Curve

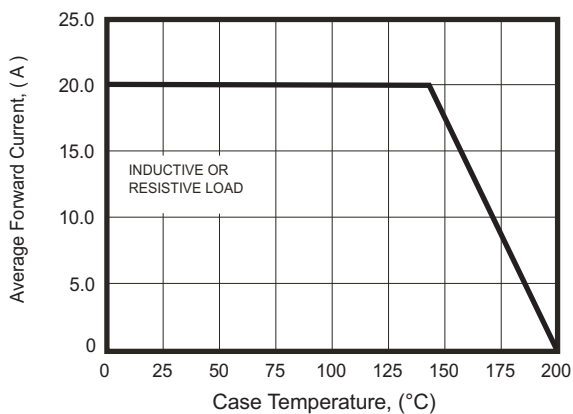


FIG.2- Maximum Non-Repetitive Surge Current

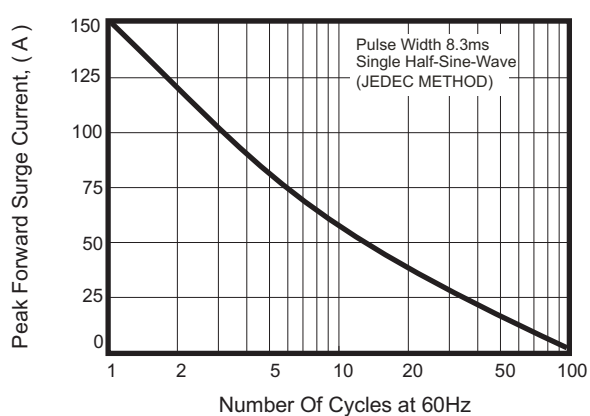


Fig.3 - Typical Instantaneous Forward Characteristics

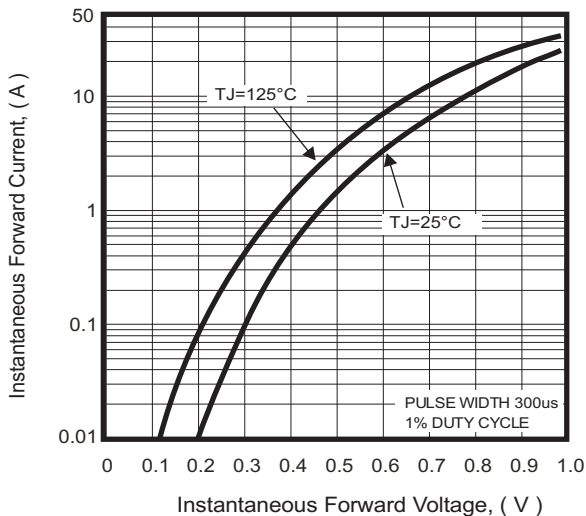


FIG.4- Typical Revers Characteristics

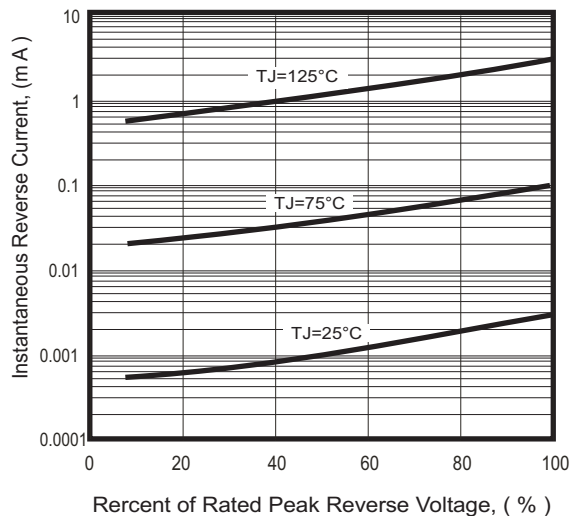


FIG.5- Typical Junction Capacitance

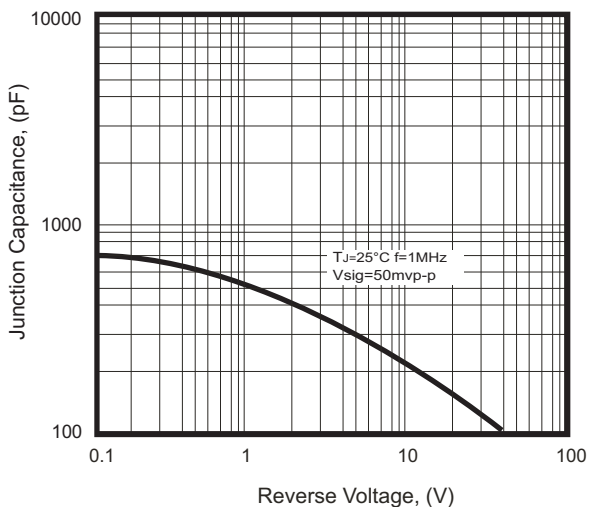
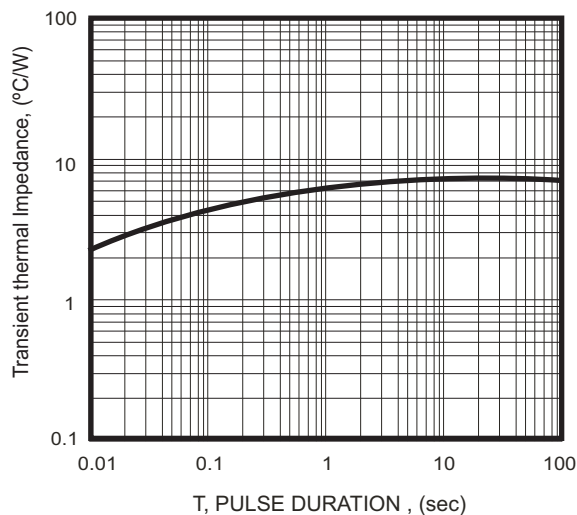
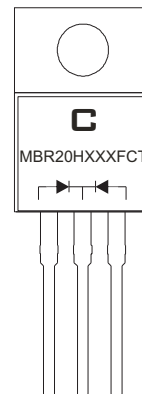


FIG.6- Typical Transient thermal impedance



Marking Code

Part Number	Marking code
MBR20H100FCT	MBR20H100FCT
MBR20H150FCT	MBR20H150FCT
MBR20H200FCT	MBR20H200FCT



XXX = Product type marking code
C = Comchip Logo

Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
ITO-220AB	50	8,000