

CURRENT 20 Ampere
VOLTAGE RANG 40 to 200 Volts

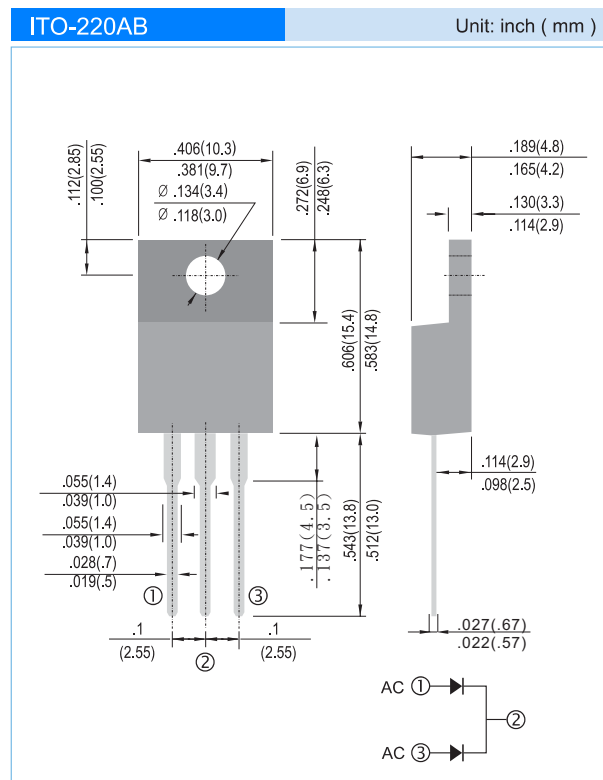
MBR2040FCT THRU MBR20200FCT

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- Guardring for overvoltage protection
- For use in low voltage,high frequency inverters free wheeling , and polarity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICALDATA

- Case: ITO-220AB molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.055 ounces, 1.5615 grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

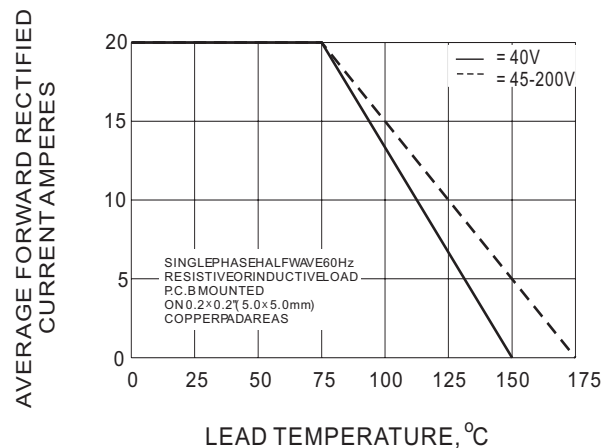
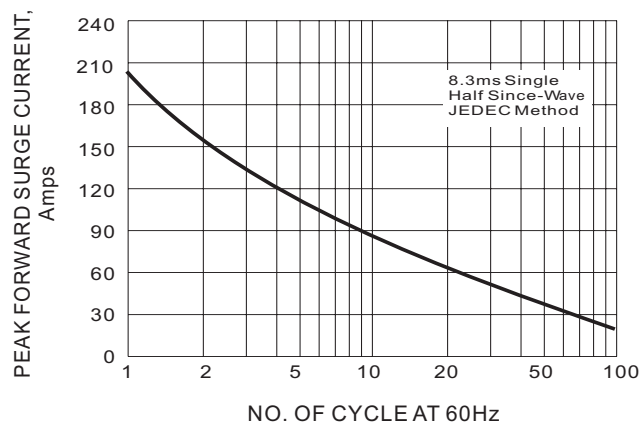
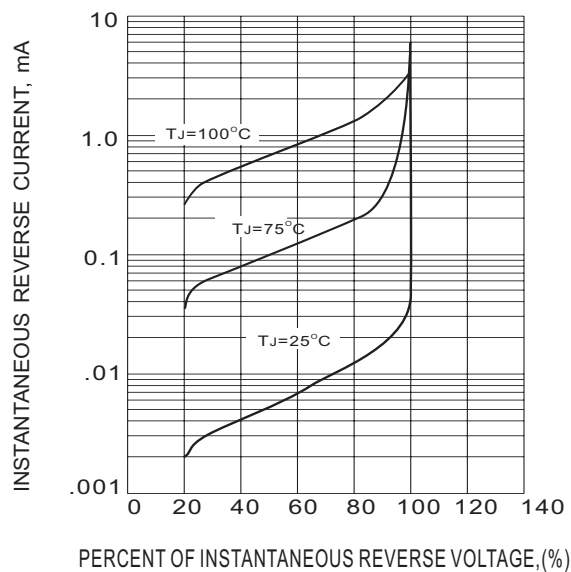
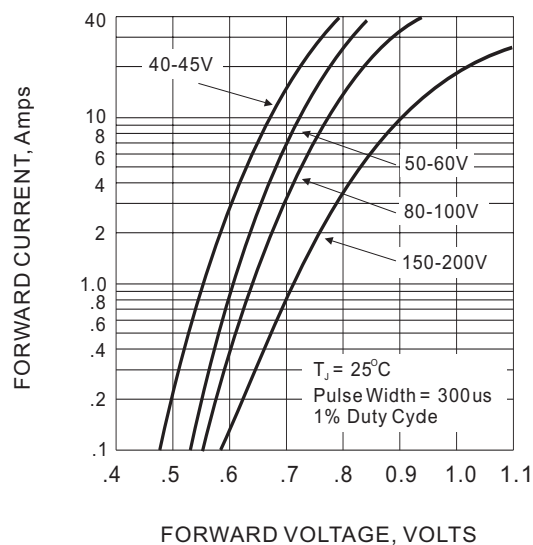
PARAMETER	SYMBOL	MBR20 40FCT	MBR20 45FCT	MBR20 50FCT	MBR20 60FCT	MBR20 80FCT	MBR20 90FCT	MBR20 100FCT	MBR20 150FCT	MBR20 200FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V _{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	40	45	50	60	80	90	100	150	200	V
Maximum 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}	200									A
Maximum Forward Voltage at 10A, per leg	V _F	0.7		0.75		0.8			0.9		V
Maximum DC Reverse Current T _j =25 °C at Rated DC Blocking Voltage T _j =125°C	I _R	0.05 20									mA
Typical Thermal Resistance	R _{θJC}	2									°C / W
Operating and Storage Junction Temperature Range	T _j ,T _{STG}	-55 to + 150	-65 to +175								°C

Notes :

Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

Fig.1-FORWARD CURRENT DERATING CURVE

Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

Fig.3- TYPICAL REVERSE CHARACTERISTICS

Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS