

# MBR2040FCT~MBR20200FCT

20 AMPERES SCHOTTKY BARRIER RECTIFIERS



## 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

\*Lead Free Finish/RoHS Compliant

## MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 1.81 grams.

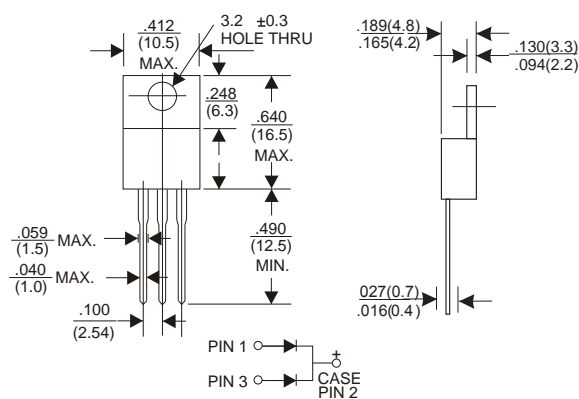
## VOLTAGE RANGE

40 to 200 Volts

## CURRENT

20.0 Ampere

## ITO-220AB



Dimensions in inches and (millimeters)

## 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	MBR2040 FCT	MBR2045 FCT	MBR2050 FCT	MBR2060 FCT	MBR2080 FCT	MBR2090 FCT	MBR20100 FCT	MBR20150 FCT	MBR20200 FCT	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	$V_F$	0.65		0.75		0.85		0.9		0.95	V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	$I_R$	0.5									mA
		30			50						mA
Typical Thermal Resistance	$R_{\theta JC}$	5.0									$^\circ\text{C} / \text{W}$
Operating and Storage Junction Temperature Range	$T_J, T_{STG}$	-65to+150									$^\circ\text{C}$
Voltage rate of change (Rated VR)	$dV/dt$	10000									V/ $\mu\text{s}$

Notes :

Both Bonding and Chip structure are available.

## RATING AND CHARACTERISTIC CURVES (MBR2040FCT THRU MBR20200FCT)

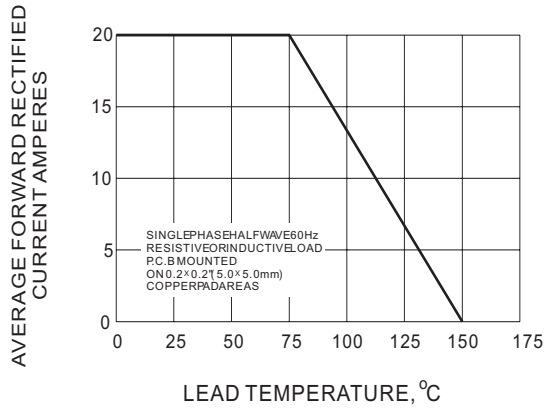


Fig.1-FORWARD CURRENT DERATING CURVE

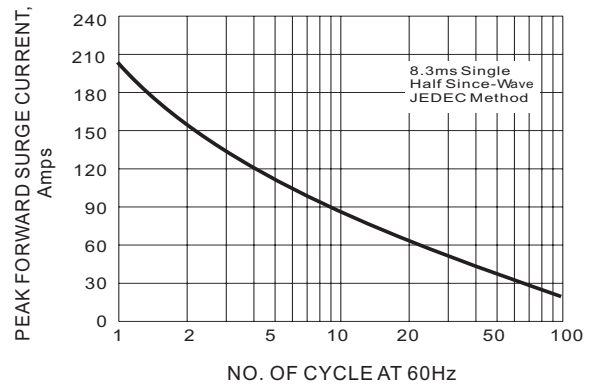


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

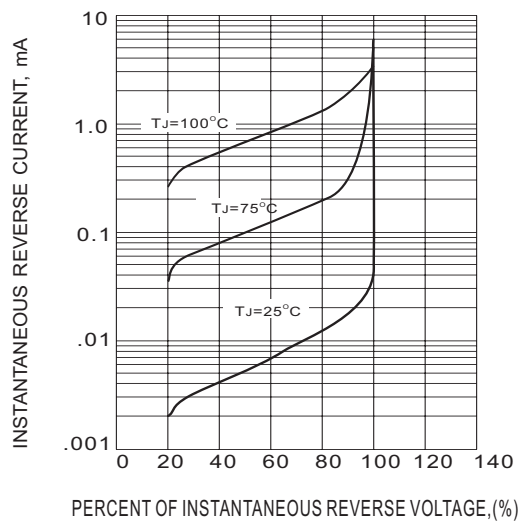


Fig.3- TYPICAL REVERSE CHARACTERISTICS

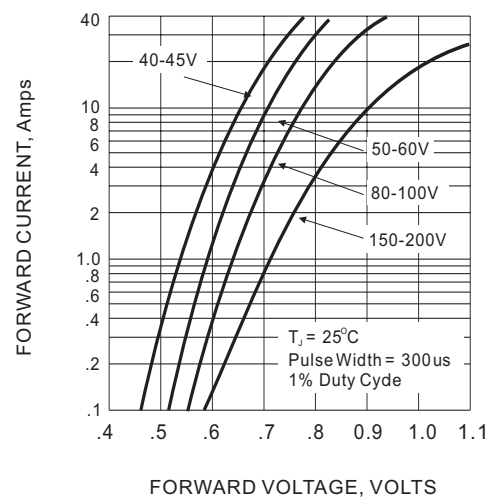


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS