



YEA SHIN TECHNOLOGY CO., LTD

MBR3040FCT THRU MBR30200FCT

## 30A SCHOTTKY Barrier Rectifier

Voltage - 40 to 200 Volts Current – 30 Amperes

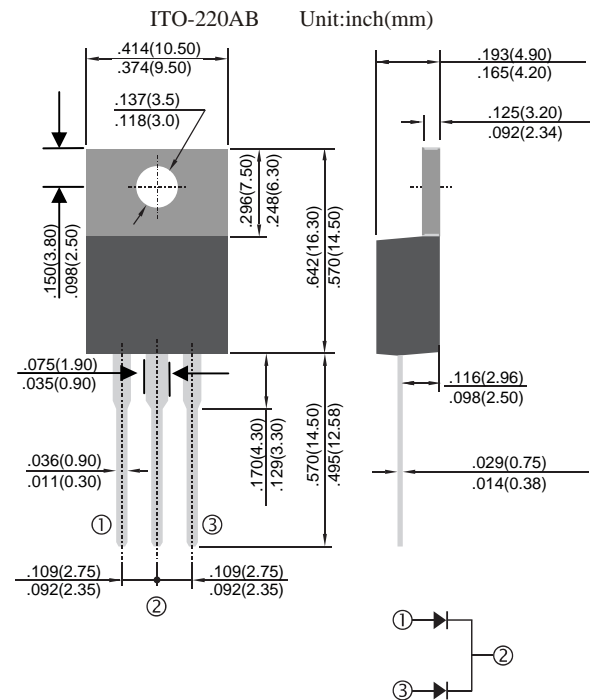


### Features

- Plastic package has Underwriters 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.
- Lead free in comply with EU RoHS.

### Mechanical Data

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



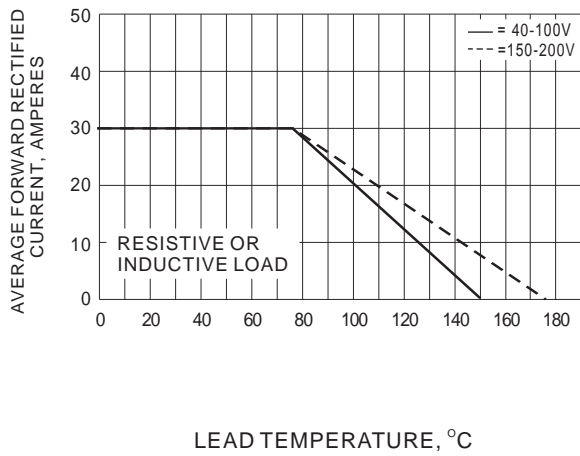
**Maximum Ratings & Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

(Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.)

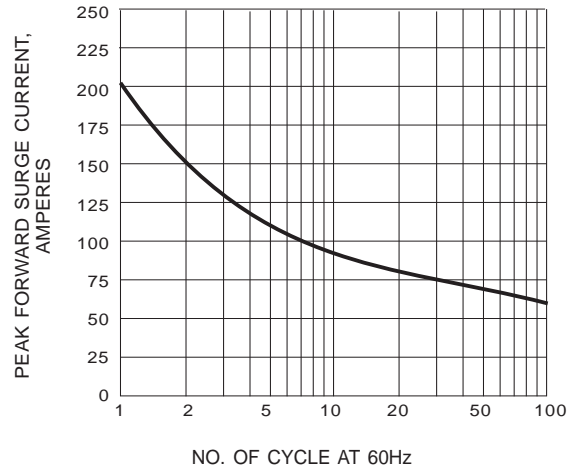
Parameters	Symbol	MBR 3040FCT	MBR 3045FCT	MBR 3050FCT	MBR 3060FCT	MBR 3080FCT	MBR 3090FCT	MBR 30100FCT	MBR 30150FCT	MBR 30200FCT	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	80	90	100	150	200	V
Maximum Average Froward Rectified Current	I <sub>(AV)</sub>	30									A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200									A
Maximum Instantaneous Forward Voltage at 15.0A Per Diode	V <sub>F</sub>	0.7		0.8		0.85			0.92		V
Maximum DC Reverse Current Ta=25°C at Rated DC Blocking Voltage Ta=125°C	I <sub>R</sub>	0.05 20									mA
Maximum Thermal Resistance	R <sub>θJC</sub>	1.4									°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							-55 to +175		°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							-55 to +175		°C

# DEVICE CHARACTERISTICS

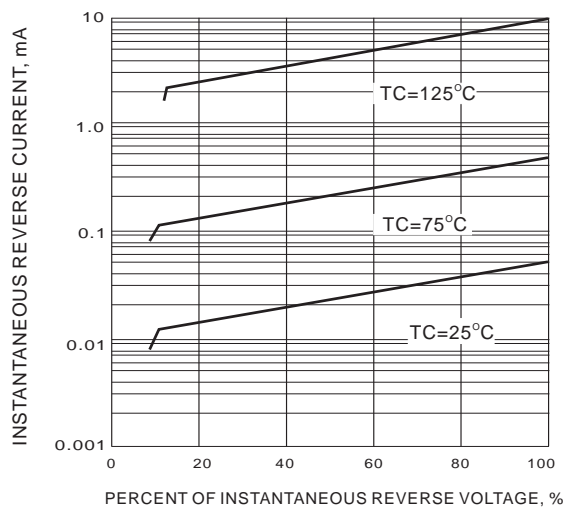
## MBR3040FCT THRU MBR30200FCT



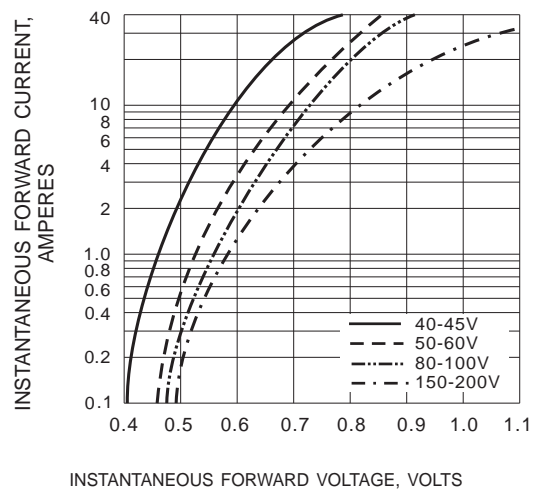
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**