



YEA SHIN TECHNOLOGY CO., LTD

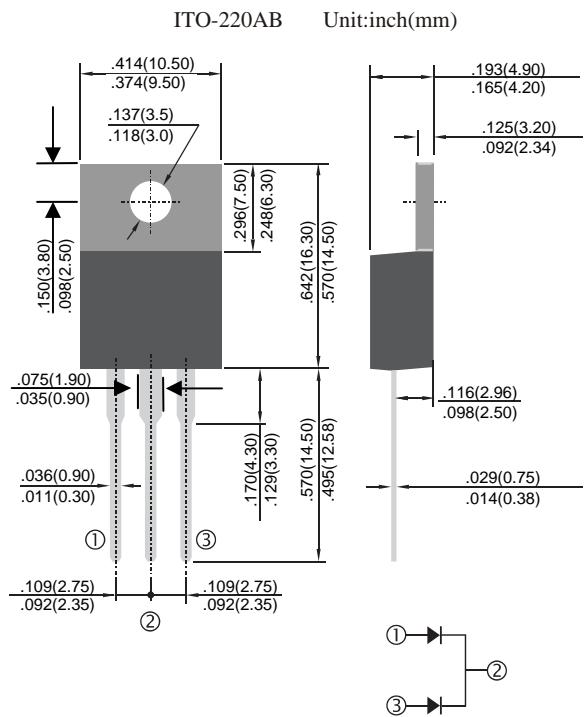
MBR2040FCT THRU MBR20200FCT

20A SCHOTTKY Barrier Rectifier**Voltage - 40 to 200 Volts Current – 20Amperes****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 2040FCT	MBR 2045FCT	MBR 2050FCT	MBR 2060FCT	MBR 2080FCT	MBR 2090FCT	MBR 20100FCT	MBR 20150FCT	MBR 20200FCT	Unit
Maximum Repetitive 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 Froward Rectified Current	I _(AV)						20				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}						150				A
Maximum Instantaneous Forward Voltage at 10.0A Per Diode	V _F	0.65		0.8		0.85		0.92			V
Maximum DC Reverse Current Ta=25°C at Rated DC Blocking Voltage Ta=125°C	I _R	0.05 20				0.02 20					mA
Typical Junction Capacitance (Note 1)	C _J	700		500		400		300	250		pF
Maximum Thermal Resistance	R _{θJC}				2						°C/W
Operating Temperature Range	T _J		-55 to +150			-55 to +175					°C
Storage Temperature Range	T _{STG}		-55 to +150			-55 to +175					°C

Notes: 1. Measure at 1.0MHz and applied reverse voltage of 4.0 Vdc.

DEVICE CHARACTERISTICS

MBR2040FCT THRU MBR20200FCT

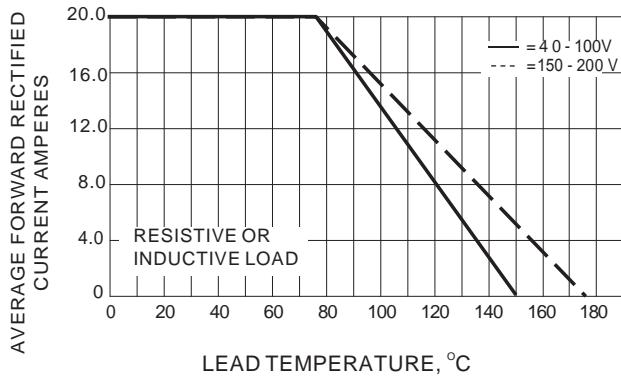


Fig.1- FORWARD CURRENT DERATING CURVE

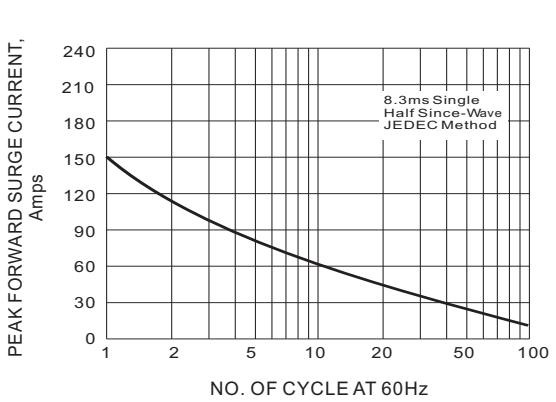


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

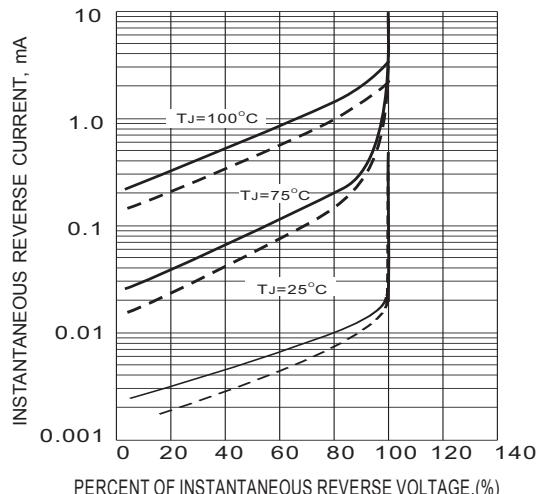


Fig.3- TYPICAL REVERSE CHARACTERISTICS

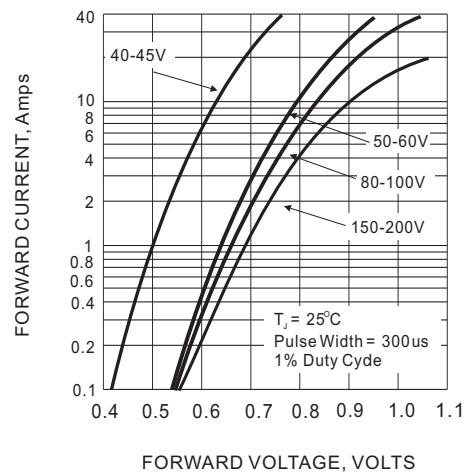


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS