



YEA SHIN TECHNOLOGY CO., LTD

MBR4040CT THRU MBR40200CT

40A SCHOTTKY Barrier Rectifier

Voltage - 40 to 200 Volts Current - 40 Amperes

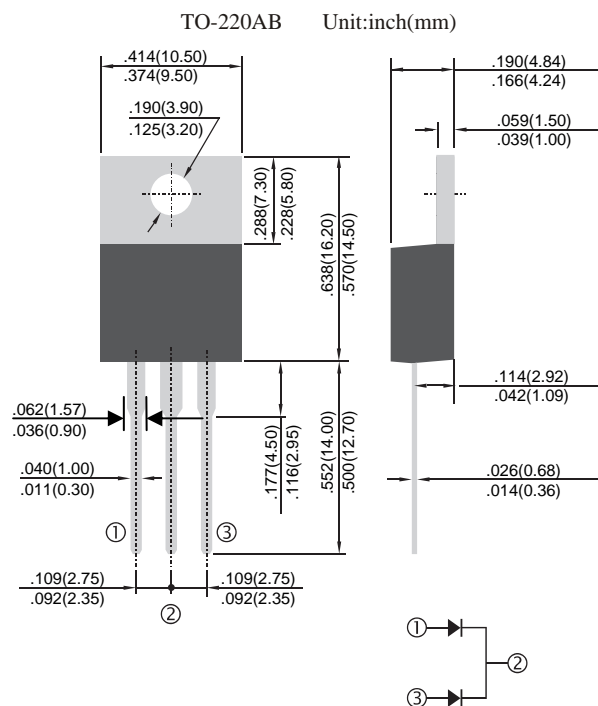


Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Flame Retardant Epoxy Molding Compound.
- Metal to silicon rectifier, majority carrier conduction.
- Low power loss, high efficiency.
- High current capacity.
- For use in low voltage high frequency inverters, freewheeling, and polarity protection applications.
- Lead free in comply with EU RoHS 2011/65/EU directives.

Mechanical Data

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



Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load)

Parameters	Symbol	MBR 4040CT	MBR 4045CT	MBR 4050CT	MBR 4060CT	MBR 4080CT	MBR 4090CT	MBR 40100CT	MBR 40150CT	MBR 40200CT	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V _{RMS}	28	32	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)	40									A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200									A
Maximum Instantaneous Forward Voltage at 20A per Diode	V _F	0.7		0.8		0.85			0.92		V
Maximum DC Reverse Current T _J =25℃ at Rated DC Blocking Voltage T _J =125℃	I _R	0.1 20				0.05 20				mA	
Maximum Thermal Resistance	R _{θJC}	2.2									℃/W
Operating Temperature Range	T _J	-55 to +150							-55 to +175		℃
Storage Temperature Range	T _{STG}	-55 to +150							-55 to +175		℃

DEVICE CHARACTERISTICS

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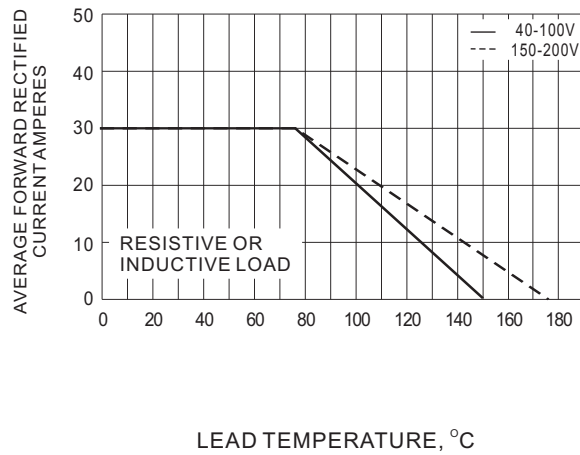


Fig.1- FORWARD CURRENT DERATING CURVE

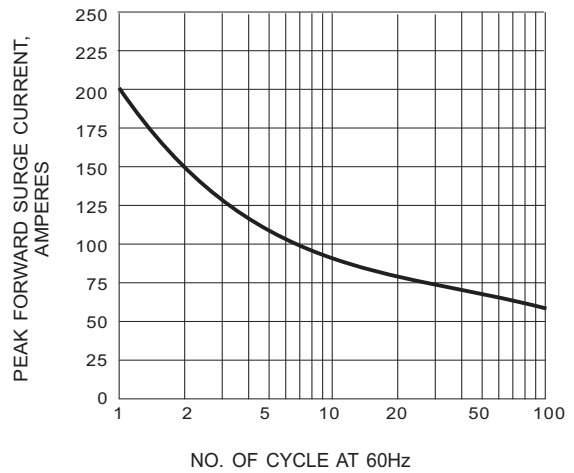


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

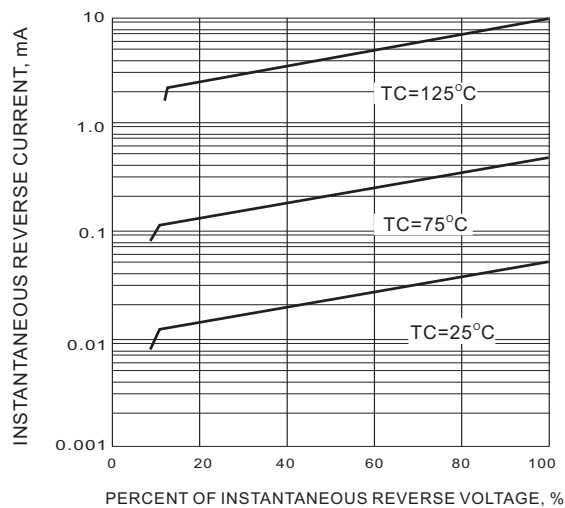


Fig.3- TYPICAL REVERSE CHARACTERISTIC

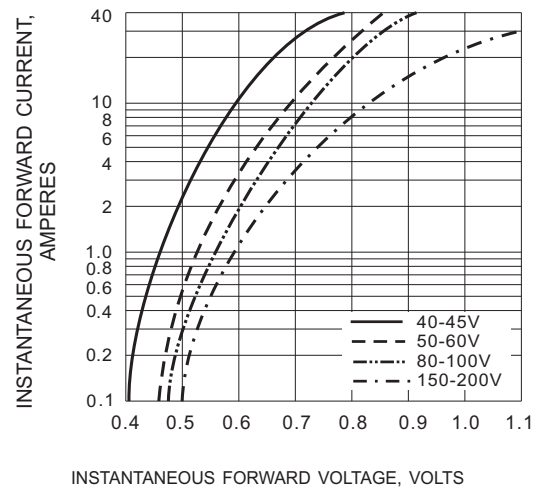


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC