

40 AMPERES SCHOTTKY BARRIER RECTIFIERS

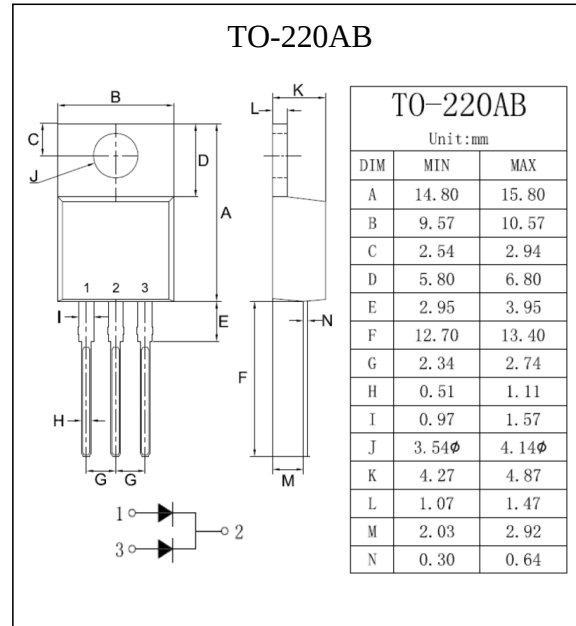
VOLTAGE	40 to 200 Volts
CURRENT	40 Amperes

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 2011/65/EU directives

MECHANICAL DATA

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



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	MBR 4040CTD	MBR 4045CTD	MBR 4045CTD	MBR 4060CTD	MBR 4080CTD	MBR 4090CTD	MBR 40100CTD	MBR 40150CTD	MBR 40200CTD	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	I _{F(AV)}	40									A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200									A
Maximum Forward Voltage 20A per leg	V _F	0.7		0.8		0.85			0.92		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _J =25 °C T _J =125°C	I _R	0.1 20				0.05 20				mA	
Typical Thermal Resistance	R _{θJC}	2.2									°C / W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							- 55 to + 175		°C

RATING AND CHARACTERISTIC CURVES

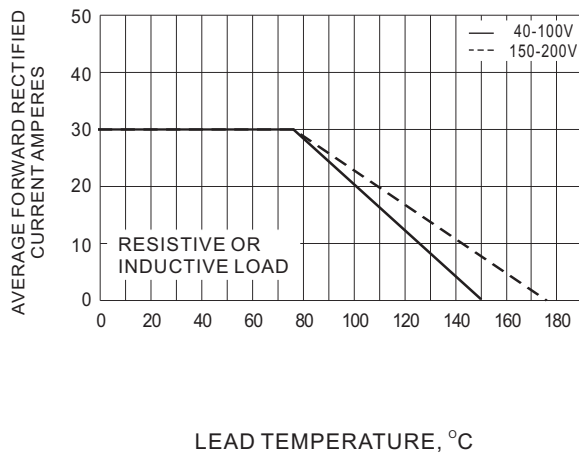


Fig.1- FORWARD CURRENT DERATING CURVE

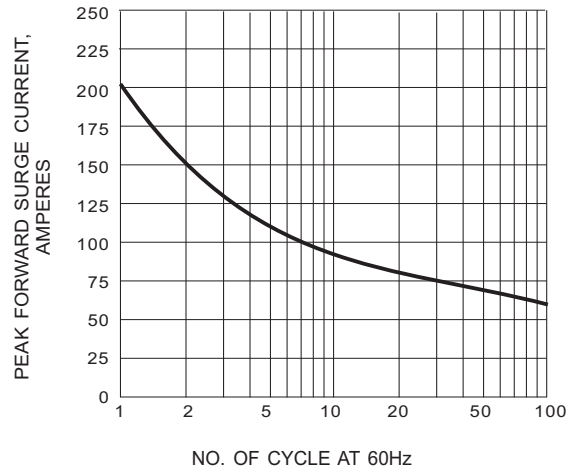


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

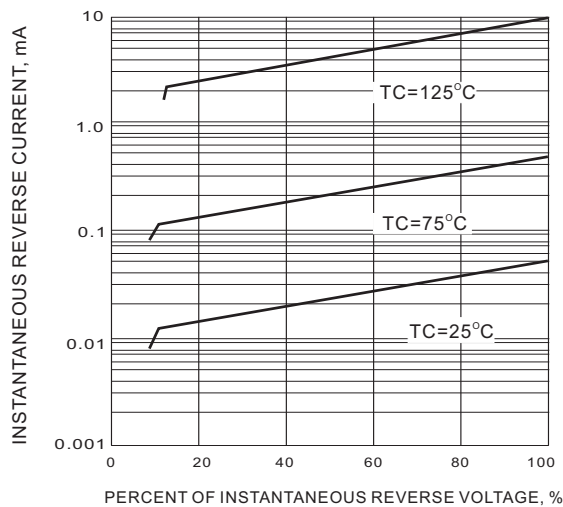


Fig.3- TYPICAL REVERSE CHARACTERISTIC

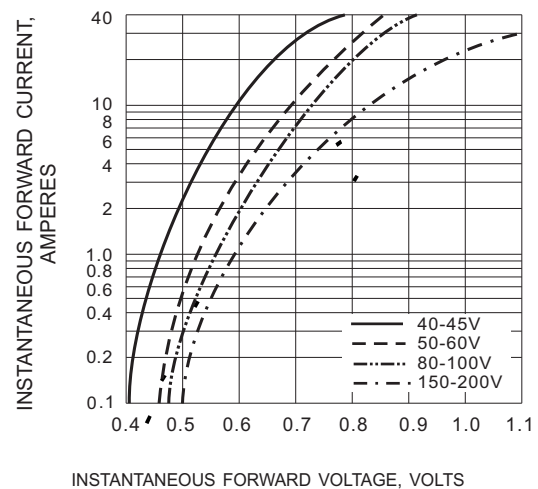


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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