



MBRF1040CTD~MBRF10200CTD

10 AMPERES SCHOTTKY BARRIER RECTIFIERS

VOLTAGE	40 to 200 Volts
CURRENT	10 Amperes

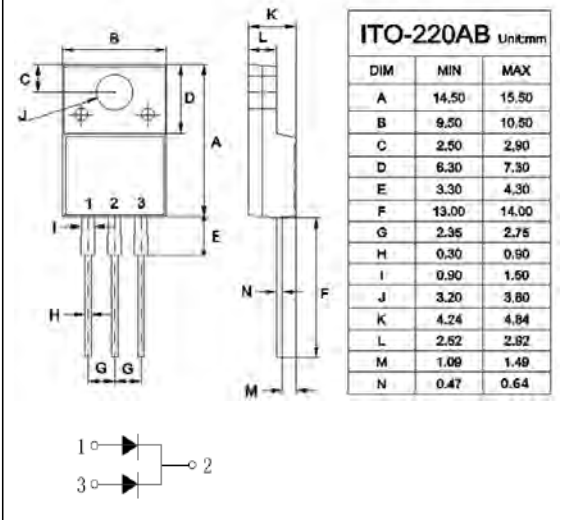
FEATURES

- 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
- Guardring for overvoltage protection
- 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

ITO-220AB



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	MBRF 1040CTD	MBRF 1045CTD	MBRF 1050CTD	MBRF 1060CTD	MBRF 1080CTD	MBRF 1090CTD	MBRF 10100CTD	MBRF 10150CTD	MBRF 10200CTD	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)}	10									A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	120					130				A
Maximum Forward Voltage at 5A, per leg	V _F	0.6		0.75		0.85			0.92		V
Maximum DC Reverse Current at Rated DC T=25°C Blocking Voltage T=125°C	I _R	0.05 20				0.02 20					mA
Typical Thermal Resistance	R _{θJC}	3									°C / W
Operating and Storage Junction Temperature Range	T _J , T _{STG}	-55 to + 150							-55 to + 175		°C
Junction Capacitance (Note 1)	C _J	420		360		280			200		pF

Note 1: Measured at 1.0 MHz and applied reverse voltage of 4.0Vd



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RATING AND CHARACTERISTIC CURVES

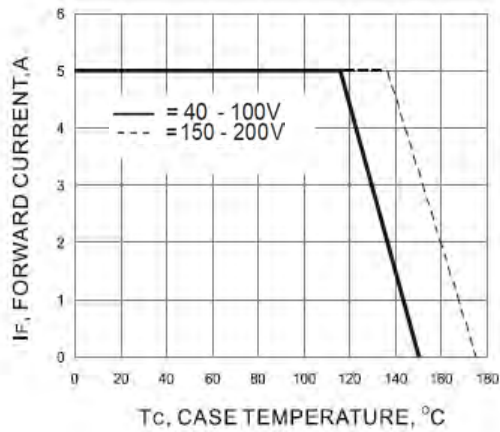


Fig.1 - FORWARD CURRENT DERATING CURVE

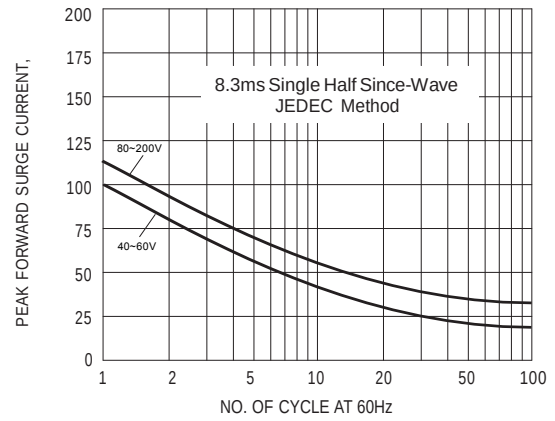


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

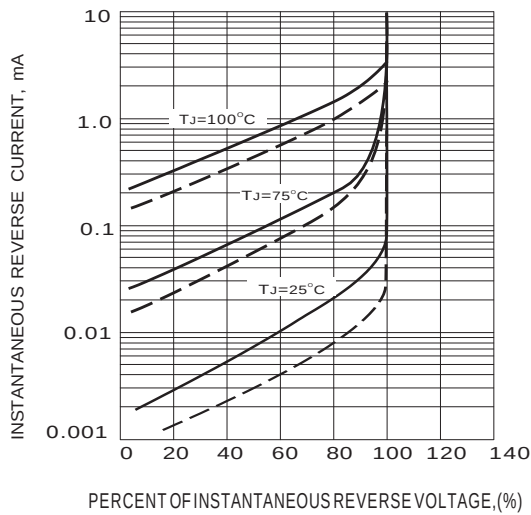


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

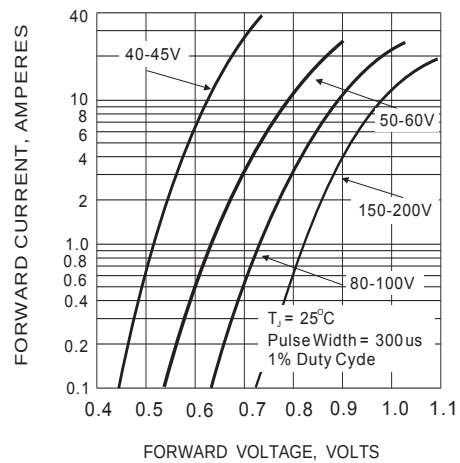


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC