



MBRF2040CTD~MBRF20200CTD

20 AMPERES SCHOTTKY BARRIER RECTIFIERS

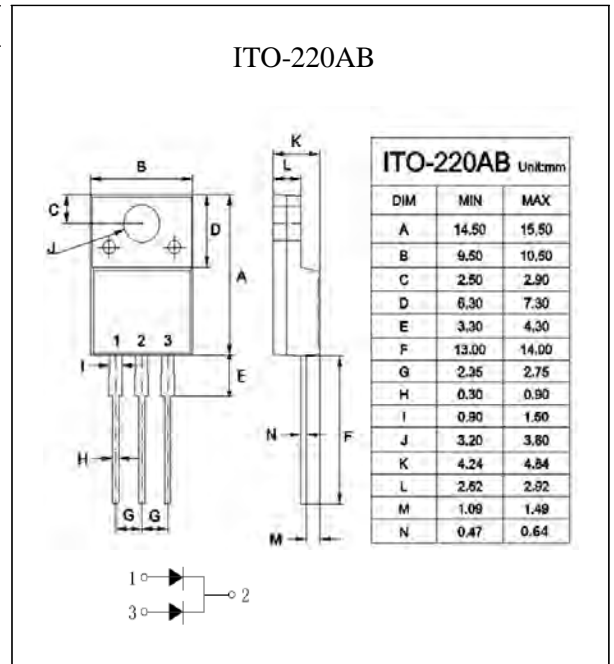
VOLTAGE	40 to 200 Volts
CURRENT	20 Amperes

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 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 2040CTD	MBRF 2045CTD	MBRF 2050CTD	MBRF 2060CTD	MBRF 2080CTD	MBRF 2090CTD	MBRF 20100CTD	MBRF 20150CTD	MBRF 20200CTD	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)	$I_{F(AV)}$	20									A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150									A
Maximum Forward Voltage at 10A, per leg	V_F	0.65		0.8		0.85			0.92		V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	I_R					0.05					mA
						20					
Typical Thermal Resistance	$R_{\theta JC}$	2									$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-50 to +150							-55 to +175		$^\circ\text{C}$
Junction Capacitance (Notel)	C_J	700		500		400			300	250	pF

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc;



RATING AND CHARACTERISTIC CURVES

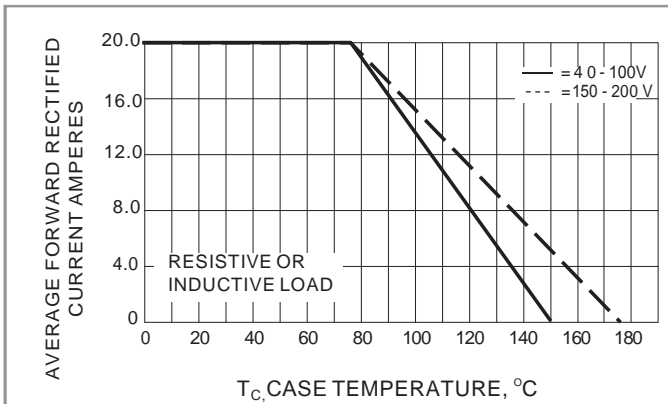


Fig.1- FORWARD CURRENT DERATING CURVE

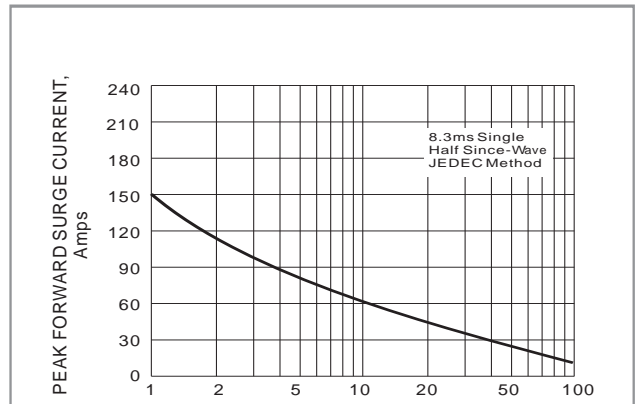


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

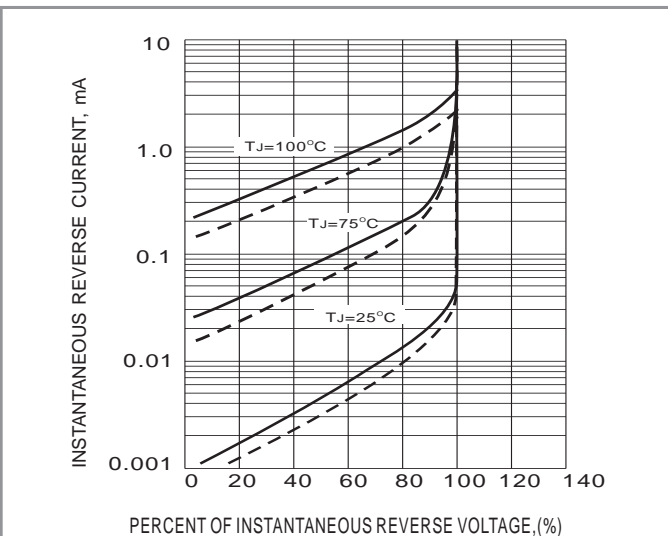


Fig.3- TYPICAL REVERSE CHARACTERISTICS

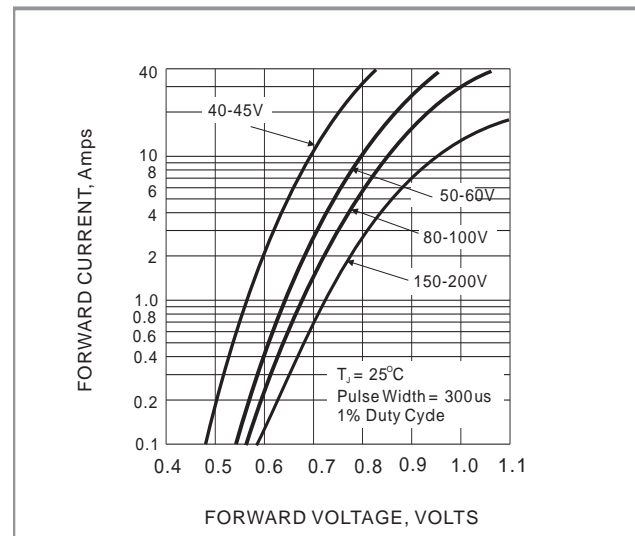


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS