

## 20 AMPERES SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE**

40 to 200 Volts

**CURRENT**

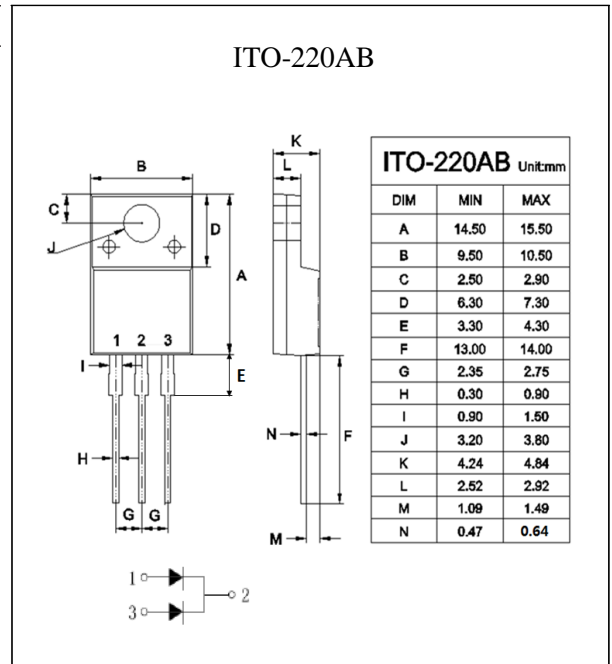
20 Amperes

### 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.

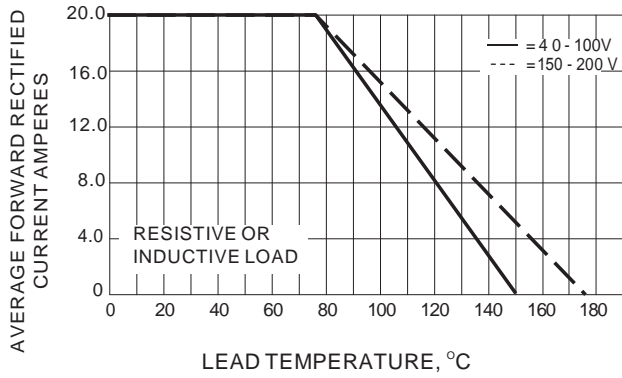
For capacitive load, derate current by 20%

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		0.90			V	
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	$I_R$	0.02			20		0.02			20		mA
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

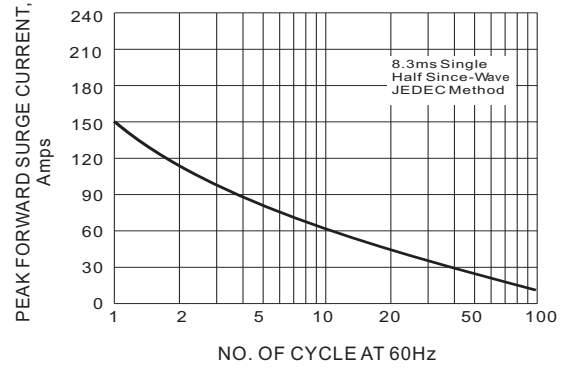
Note:

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

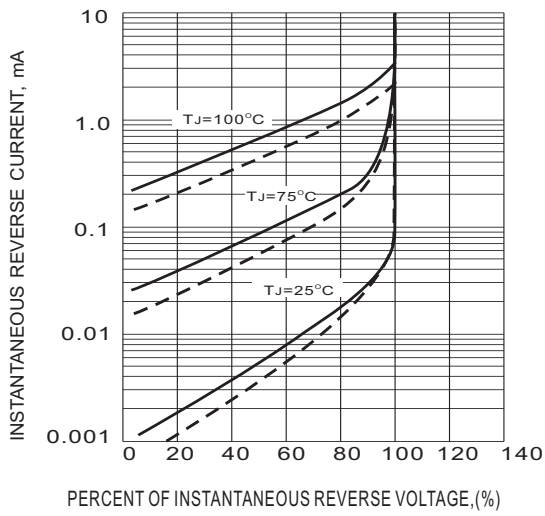
**RATING AND CHARACTERISTIC CURVES**



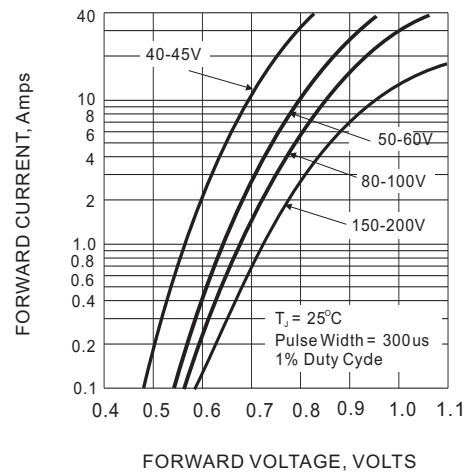
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

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