

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 30 - 100 V  
CURRENT: 30 A

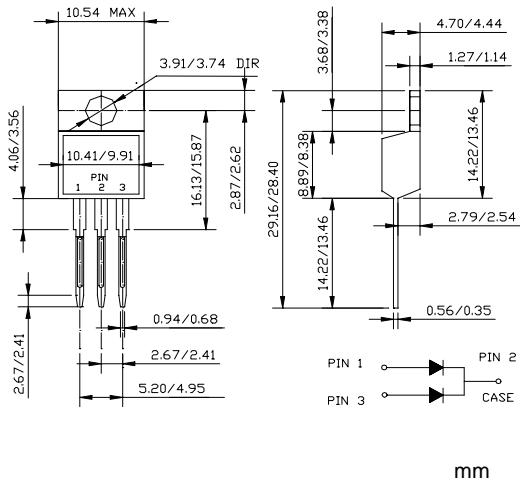
## FEATURES

- ◇ High surge capacity.
- ◇ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ◇ Metal silicon junction, majority carrier conduction.
- ◇ High current capacity, low forward voltage drop.
- ◇ Guard ring for over voltage protection.

## MECHANICAL DATA

- ◇ Case: JEDEC TO-220AB, molded plastic body
- ◇ Terminals: Leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.08ounce, 2.24 grams

## TO-220AB



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		MBR 2530CT	MBR 2535CT	MBR 2540CT	MBR 2545CT	MBR 2550CT	MBR 2560CT	MBR 2580CT	MBR 25100CT	UNITS					
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	30	35	40	45	50	60	80	100	V					
Maximum RMS Voltage	V <sub>RMS</sub>	21	25	28	32	35	42	56	70	V					
Maximum DC blocking voltage	V <sub>DC</sub>	30	35	40	45	50	60	80	100	V					
Maximum average forward total device rectified current @T <sub>C</sub> = 130°C	I <sub>F(AV)</sub>	30								A					
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150								A					
Maximum forward voltage (I <sub>F</sub> =15A, T <sub>C</sub> =25 °C) (I <sub>F</sub> =15A, T <sub>C</sub> =125 °C) (Note 1) (I <sub>F</sub> =30A, T <sub>C</sub> =25°C) (I <sub>F</sub> =30A, T <sub>C</sub> =125°C)	V <sub>F</sub>	-		0.75		0.85		-							
Maximum reverse current @T <sub>C</sub> =25°C at rated DC blocking voltage @T <sub>C</sub> =125°C	I <sub>R</sub>	0.2			1.0			50							
Maximum thermal resistance (Note2)	R <sub>θJC</sub>	1.5								°C/W					
Operating junction temperature range	T <sub>J</sub>	- 55 ---- + 150								°C					
Storage temperature range	T <sub>STG</sub>	- 55 ---- + 150								°C					

NOTE: 1. Pulse test: 300μs pulse width, 1% duty cycle.

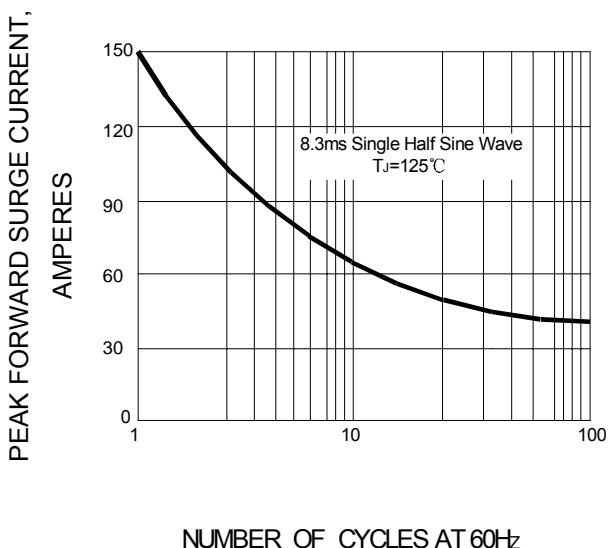
2. Thermal resistance from junction to case.

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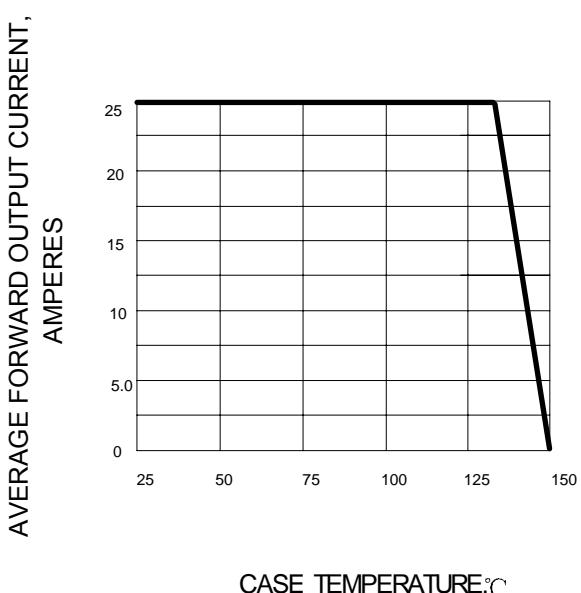
# RATINGS AND CHARACTERISTIC CURVES

**MBR2530CT--MBR25100CT**

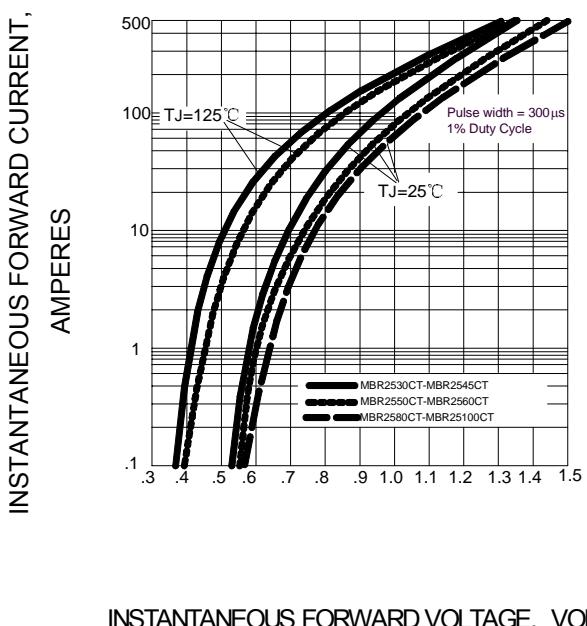
**FIG.1 – PEAK FORWARD SURGE CURRENT**



**FIG.2 – FORWARD DERATING CURVE**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

