



## Schottky Barrier Rectifiers

Reverse Voltage - 40 to 200 Volts  
Forward Current - 10 Amperes

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- For through hole applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.

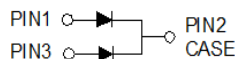
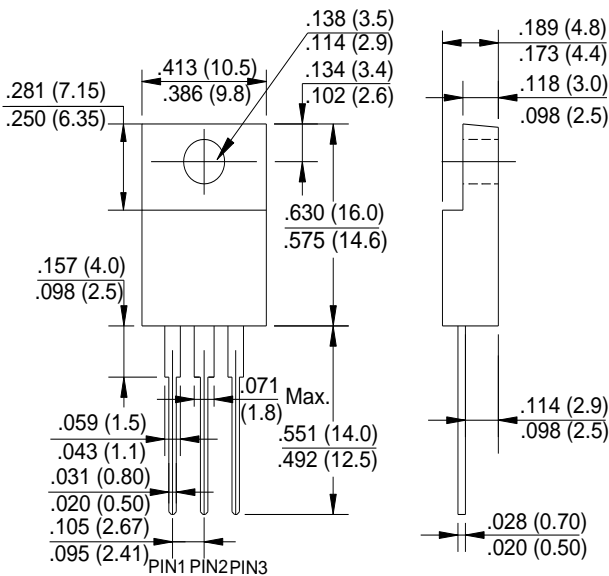
● Lead free in comply with EU RoHS

Note: Products with logo or are made by HY Electronic (Cayman) Limited.

### Mechanical data

- Case: ITO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.

### ITO-220AB



Package Outline Dimensions in Inches (Millimeters)

### MAXIMUM RATINGS

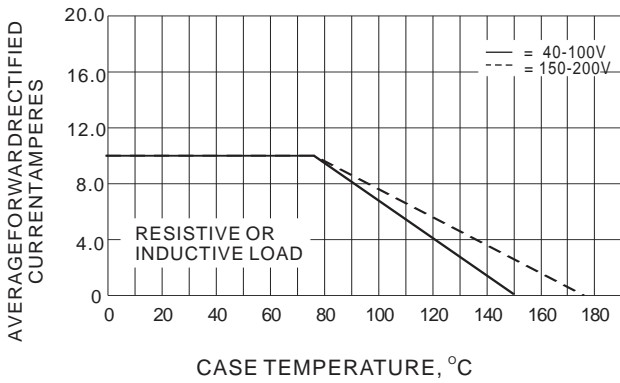
Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	MBRF 1040CT	MBRF 1045CT	MBRF 1050CT	MBRF 1060CT	MBRF 1080CT	MBRF 1090CT	MBRF 10100CT	MBRF 10150CT	MBRF 10200CT	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	45	50	60	80	90	100	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	10									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100									A
Maximum Forward Voltage at 5 A, per leg	V <sub>F</sub>	0.60	0.75		0.85			0.90	0.95		V
Maximum average reverse current at rated DC blocking voltage T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	0.1 20									mA
Typical thermal resistance from junction to case.	R <sub>θJC</sub>	3									°C/W
Junction Capacitance (Note 1)	C <sub>J</sub>	420	360		280			200			pF
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150							-55 to +175		°C

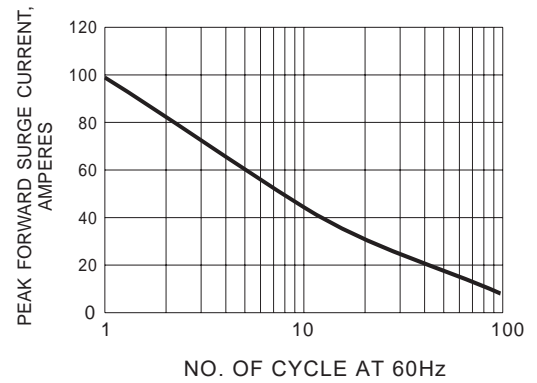
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vd

# Rating and Characteristic Curves

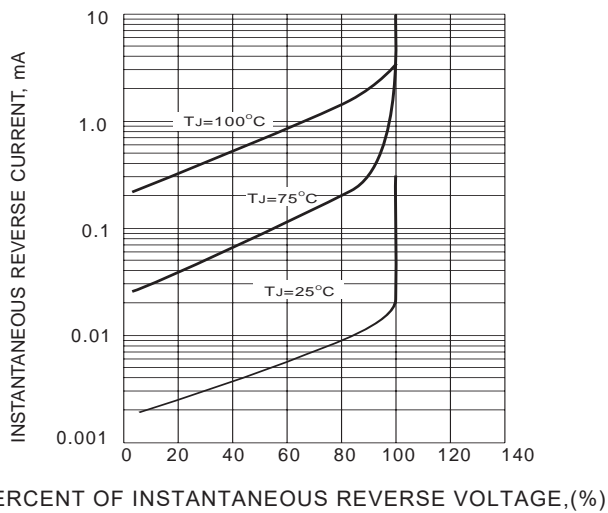
## MBRF1040CT THRU MBRF10200CT



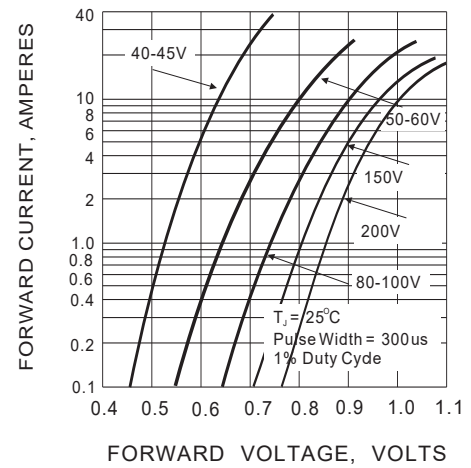
**Fig.1- FORWARD CURRENT DERATING CURVE**



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



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



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

The curve above is for reference only.



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