



## Schottky Barrier Rectifiers

Reverse Voltage - 30 to 100 Volts  
Forward Current - 8.0 Amperes

### Features

- Low forward voltage drop
- High current capability
- High surge capability
- The plastic material carries UL recognition 94V-0

### Mechanical Data

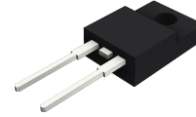
- Case: JEDEC ITO-220AC molded plastic
- Polarity: As marked on the body
- Mounting position: Any

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

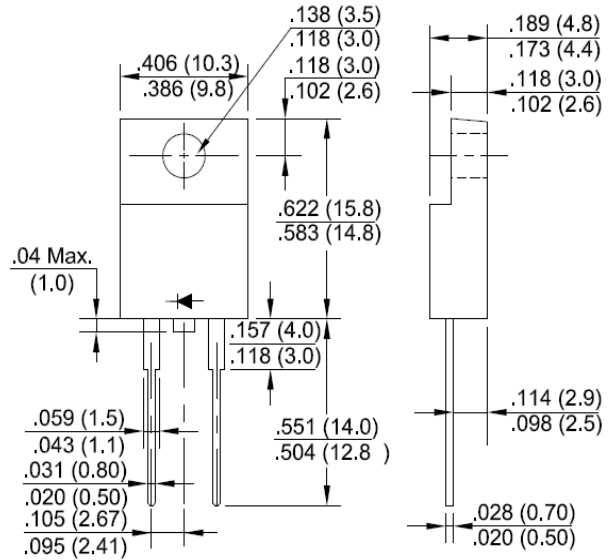
### Applications

- For use in low voltage, high frequency inverters, polarity protection applications.

### ITO-220AC



RoHS COMPLIANT



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	MBRF830	MBRF840	MBRF850	MBRF860	MBRF880	MBRF8100	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current	I <sub>(AV)</sub>	8.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load ( JEDEC Method )	I <sub>FSM</sub>	150						A
Peak Forward Voltage (Note1) IF=8A @TJ=25°C	V <sub>F</sub>	0.70		0.80		0.85		V
IF=8A @TJ=125°C		0.57		0.70		0.75		
IF=16A @TJ=25°C		0.84		0.95		0.95		
IF=16A @TJ=125°C		0.72		0.85		0.85		
Maximum DC Reverse Current @TJ=25°C	I <sub>R</sub>	0.1				0.1		mA
at Rated DC Blocking Voltage @TJ=125°C		15				10		
Typical Junction Capacitance ( Note2 )	C <sub>J</sub>	250				280		pF
Typical Thermal Resistance Junction to Case	R <sub>θJC</sub>	3.0				2.0		°C/W
Junction Temperature Range	T <sub>J</sub>	-55 to +150						°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +175						°C

Notes: 1. 300us pulse width,2% duty cycle.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. The typical data above is for reference only.

# Rating and Characteristic Curves

## MBRF830 THRU MBRF8100



Fig. 1 - Forward Current Derating Curve

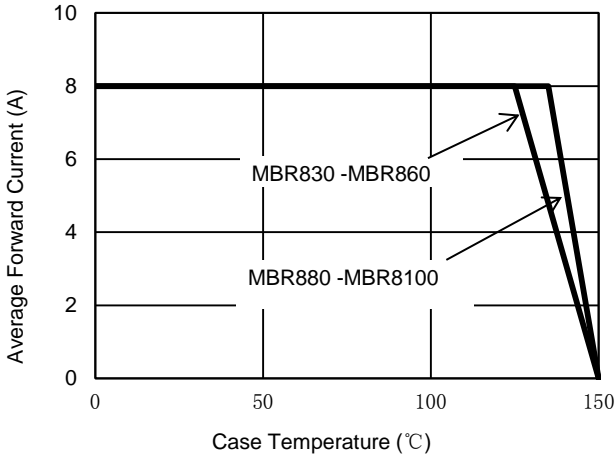


Fig. 2 - Maximum Non-Repetitive Surge Current

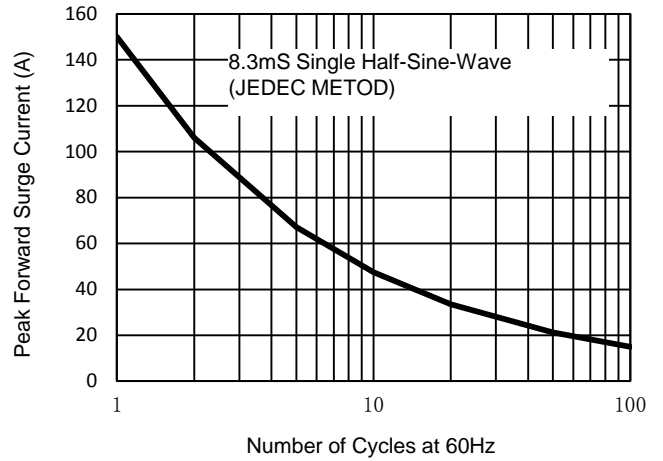


Fig. 3 - Typical Reverse Characteristics

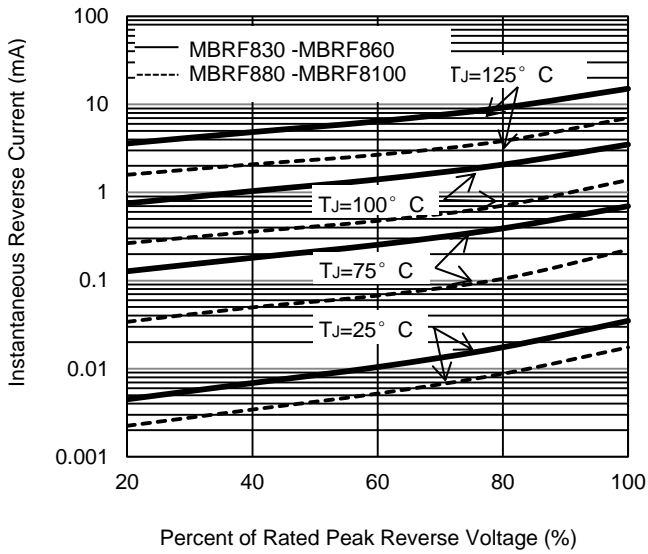


Fig. 4 - Typical Forward Characteristics

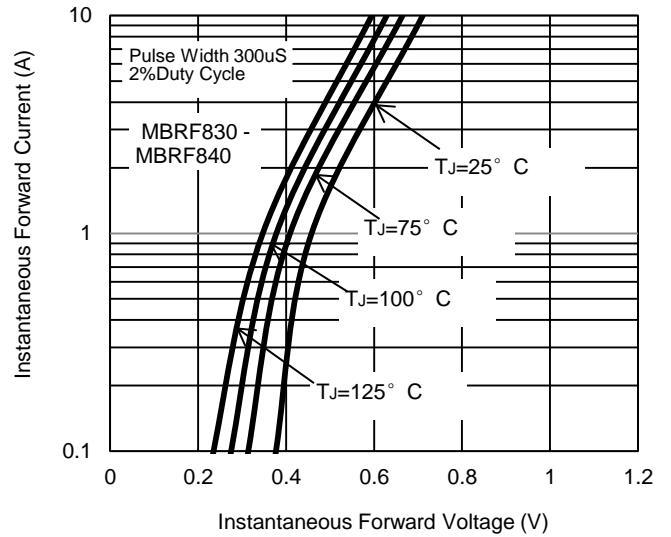


Fig. 5 - Typical Forward Characteristics

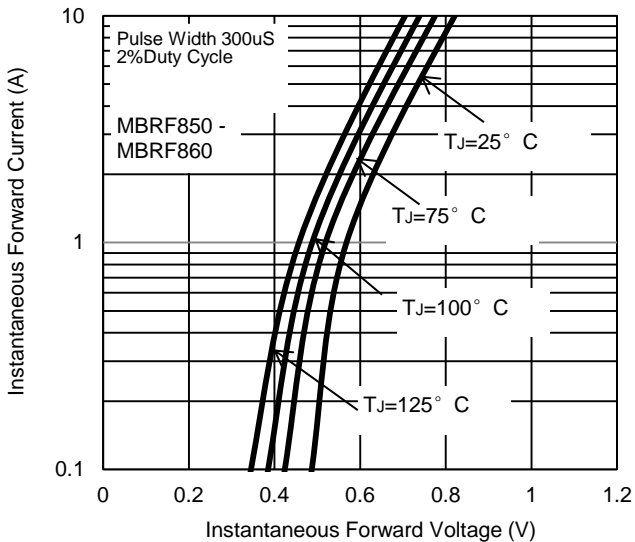
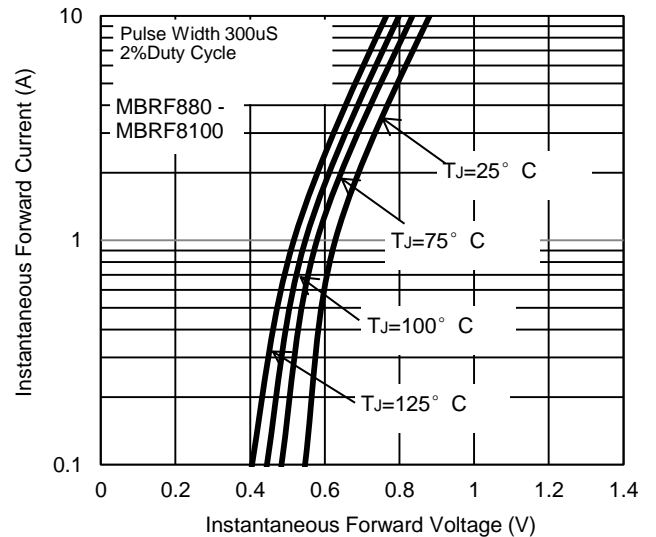


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.



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