

## Surface Mount Schottky Barrier Rectifiers

**Reverse Voltage - 30 to 150 Volts**  
**Forward Current - 16.0 Amperes**

### Features

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

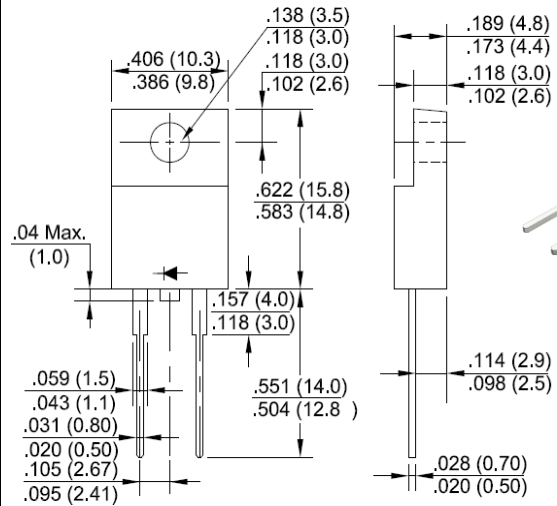
### Mechanical Data

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

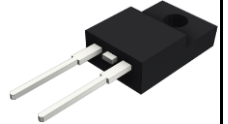
### Applications

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

### ITO-220AC



RoHS  
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

### 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	MBRF 1630	MBRF 1640	MBRF 1650	MBRF 1660	MBRF 1680	MBRF 16100	MBRF 16150	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current	I <sub>(AV)</sub>	16.0							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=16A @TJ=25°C	V <sub>F</sub>	0.63		0.75		0.85		0.95	V
IF=16A @TJ=125°C		0.57		0.65		0.75		0.92	
Maximum DC Reverse Current @TJ=25°C	I <sub>R</sub>	0.5		0.5		0.3		0.1	mA
at Rated DC Blocking Voltage @TJ=125°C		15		10		7.5		5	
Typical Junction Capacitance ( Note2 )	C <sub>J</sub>	500							pF
Typical Thermal Resistance Junction to Case	R <sub>θJC</sub>	3.0							°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. 300uS.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.  
 3. The typical data above is for reference only.

Fig. 1 - Forward Current Derating Curve

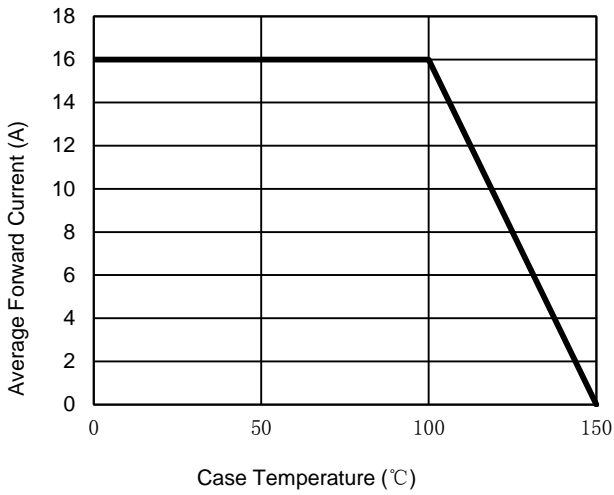


Fig. 2 - Maximum Non-Repetitive Surge Current

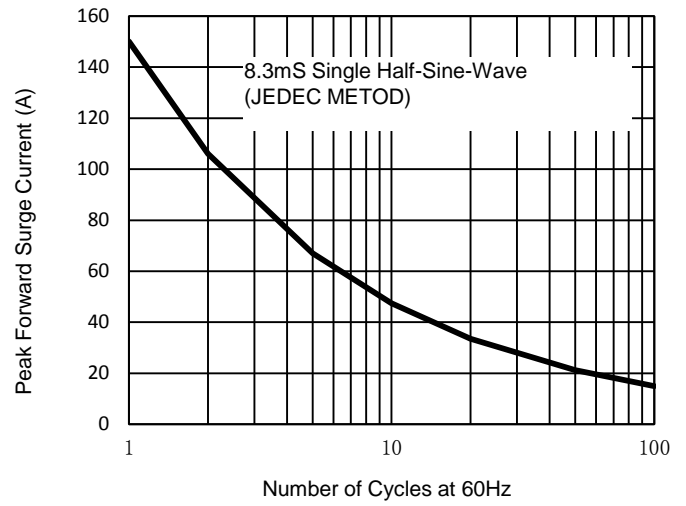


Fig. 3 - Typical Reverse Characteristics

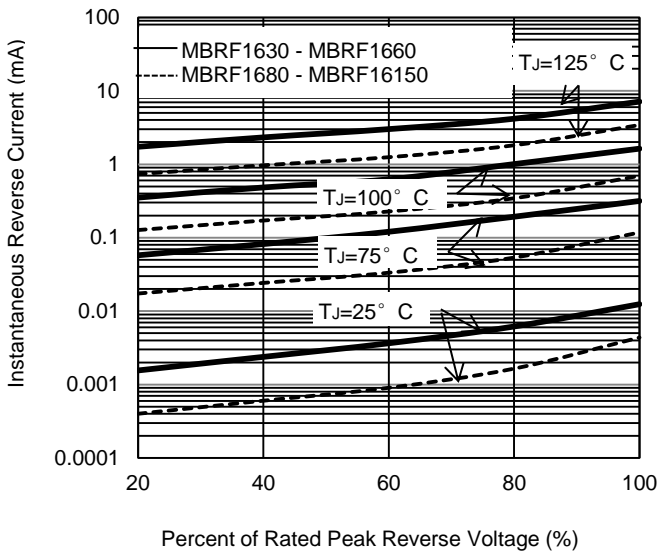


Fig. 4 - Typical Forward Characteristics

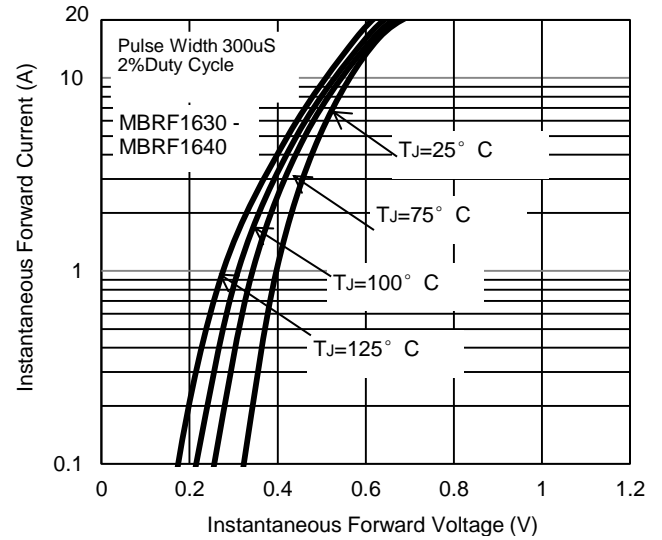


Fig. 5 - Typical Forward Characteristics

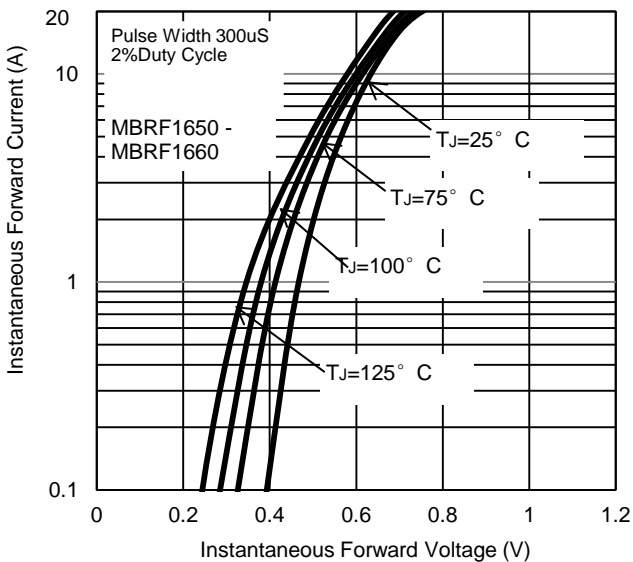
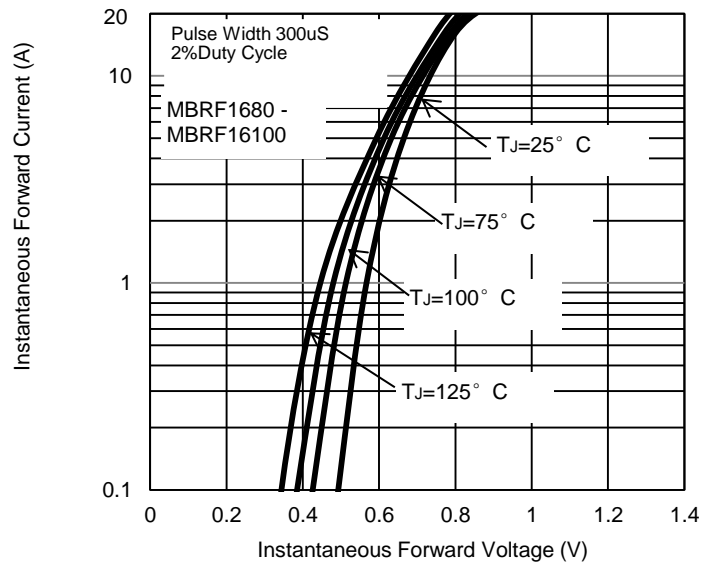


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.



Fig. 7 - Typical Forward Characteristics

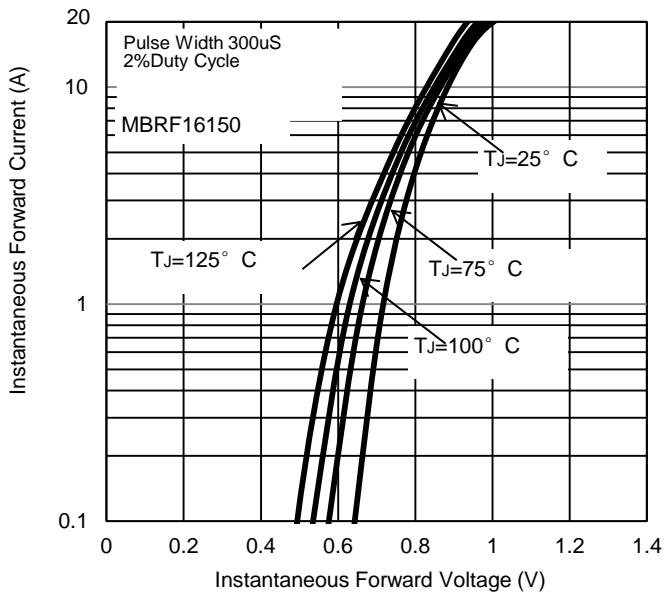
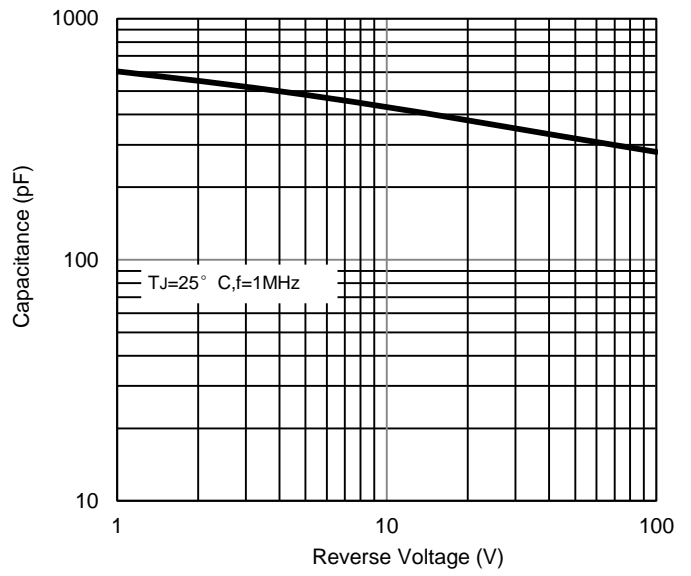


Fig. 8 - Typical Junction Capacitance



The curve above is for reference only.



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