



## 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-220AB molded plastic
- Polarity: As marked on the body
- Mounting position: Any

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

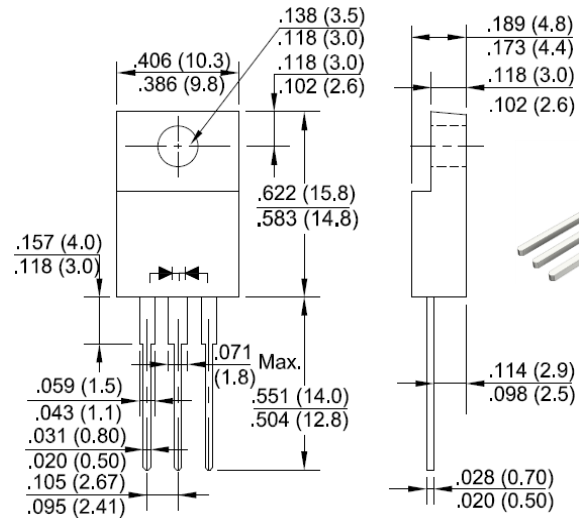
### Applications

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

### ITO-220AB



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	MBRF	MBRF	MBRF	MBRF	MBRF	MBRF	Unit		
		1630CT	1640CT	1650CT	1660CT	1680CT	16100CT	16150CT			
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)	V <sub>F</sub>	IF=8A @T <sub>J</sub> =25°C		0.7		0.75		0.85		1.05	
		IF=8A @T <sub>J</sub> =125°C		0.57		0.65		0.75		0.92	
		IF=16A @T <sub>J</sub> =25°C		0.72		-		0.95		-	
		IF=16A @T <sub>J</sub> =125°C		-		-		0.85		-	
Maximum DC Reverse Current @T <sub>J</sub> =25°C	I <sub>R</sub>	0.3				0.1				mA	
at Rated DC Blocking Voltage @T <sub>J</sub> =125°C		10				5.0					
Typical Junction Capacitance ( Note2 )	C <sub>J</sub>	400				200				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

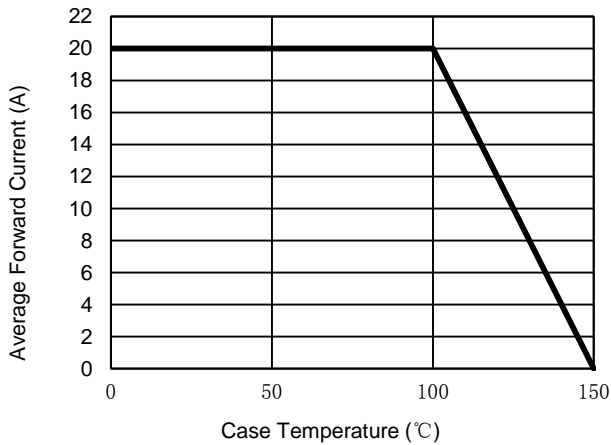


Fig. 2 - Maximum Non-Repetitive Surge Current

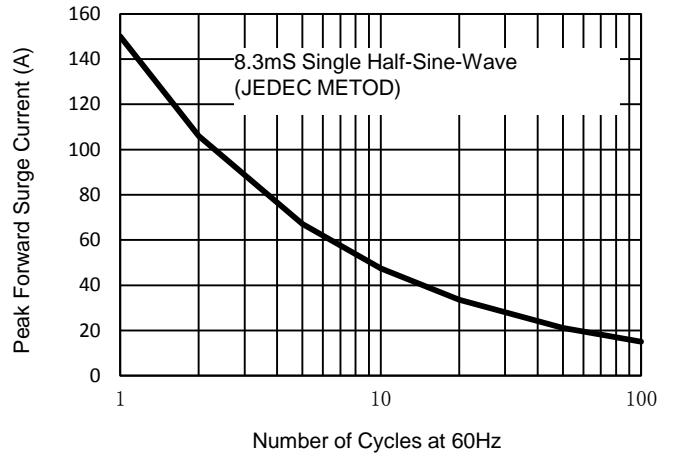


Fig. 3 - Typical Reverse Characteristics

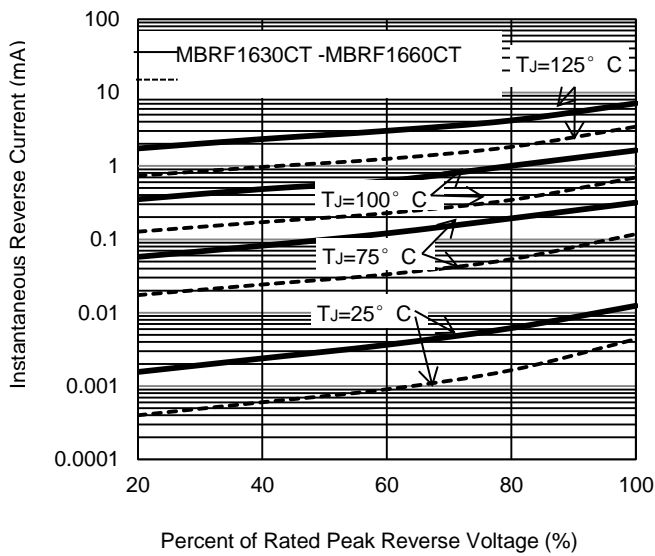


Fig. 4 - Typical Forward Characteristics

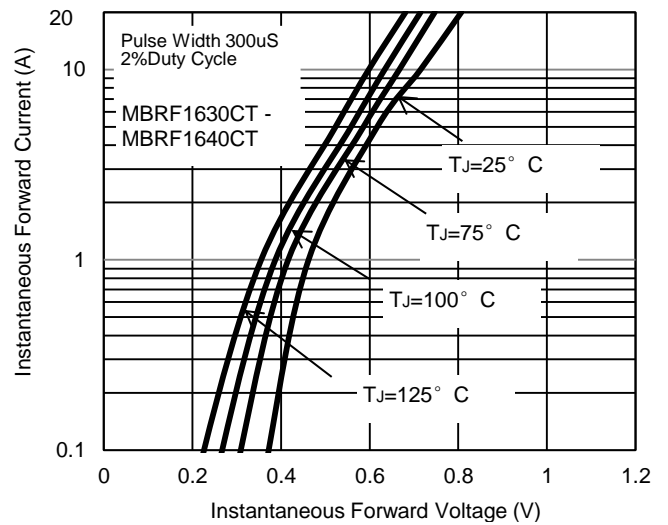


Fig. 5 - Typical Forward Characteristics

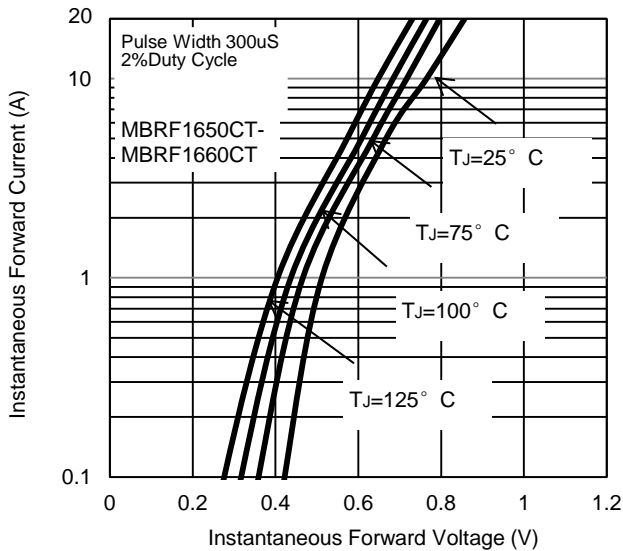
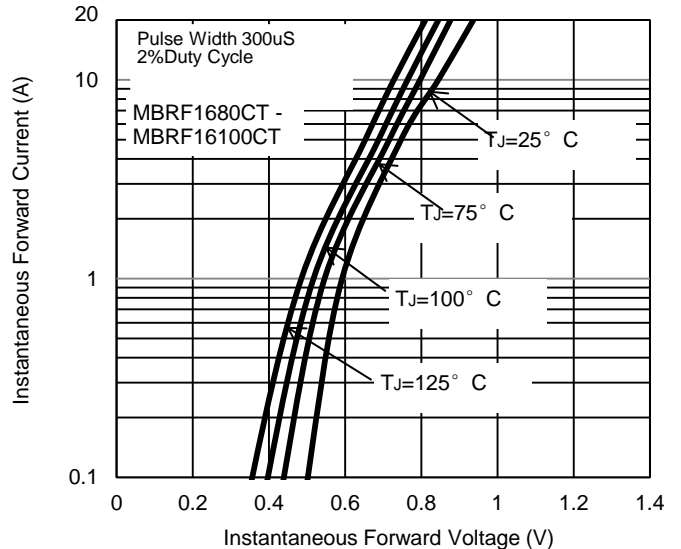


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.

# Rating and Characteristic Curves

## MBRF1630CT THRU MBRF16150CT



Fig. 7 - Typical Forward Characteristics

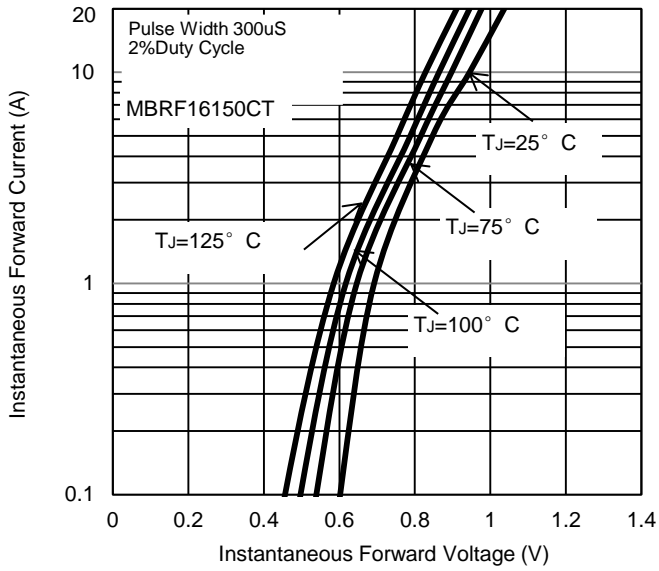
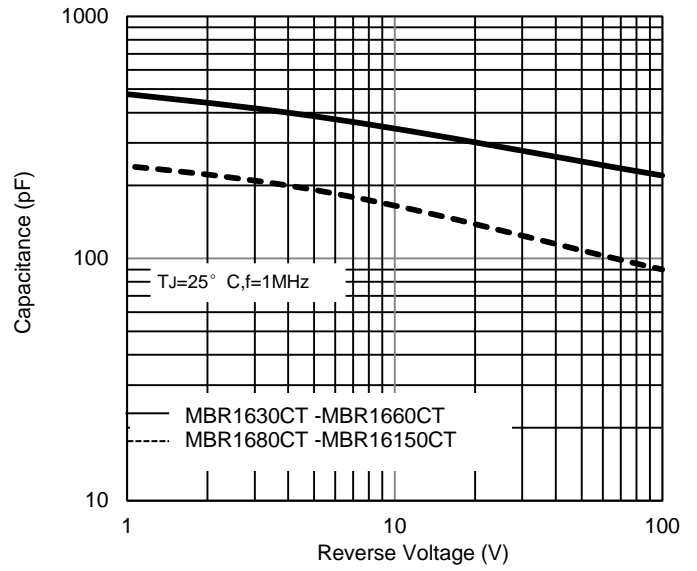


Fig. 8 - Typical Junction Capacitance



The curve above is for reference only.

MBRF16\*CT-U-00-00  
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