

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

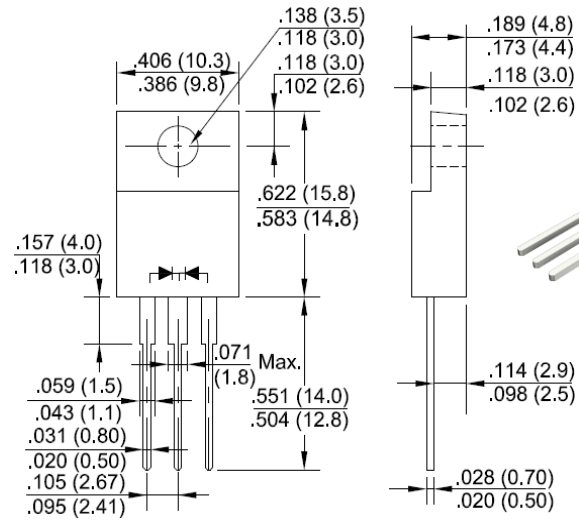
Mechanical Data

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

Applications

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

ITO-220AB



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 1630CT	MBRF 1640CT	MBRF 1650CT	MBRF 1660CT	MBRF 1680CT	MBRF 16100CT	MBRF 16150CT	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V _{RMS}	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V _{DC}	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current	I _(AV)	16.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150							A
Peak Forward Voltage (Note1)	V _F	IF=8A @T _J =25°C	0.7	0.75	0.85	1.05			V
		IF=8A @T _J =125°C	0.57	0.65	0.75	0.92			
		IF=16A @T _J =25°C	0.72	-	0.95	-			
		IF=16A @T _J =125°C	-	-	0.85	-			
Maximum DC Reverse Current @T _J =25°C	I _R		0.3			0.1			mA
at Rated DC Blocking Voltage @T _J =125°C			10			5.0			
Typical Junction Capacitance (Note2)	C _J		400			200			pF
Typical Thermal Resistance Junction to Case	R _{θJC}	3.0							°C/W
Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-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

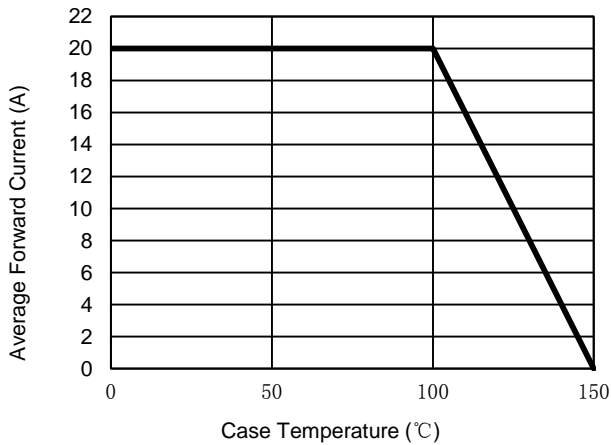


Fig. 2 - Maximum Non-Repetitive Surge Current

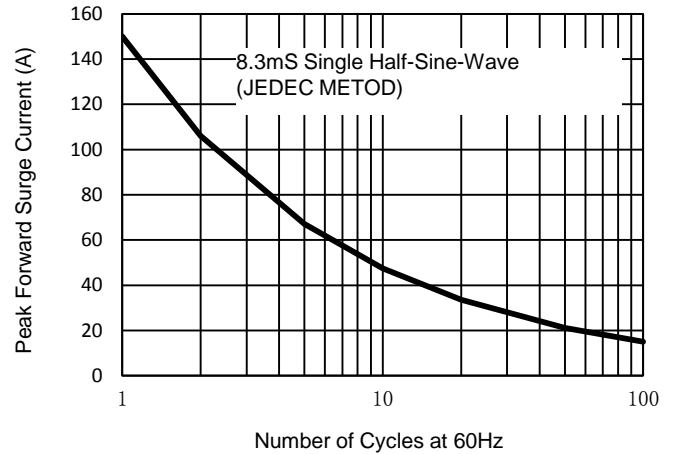


Fig. 3 - Typical Reverse Characteristics

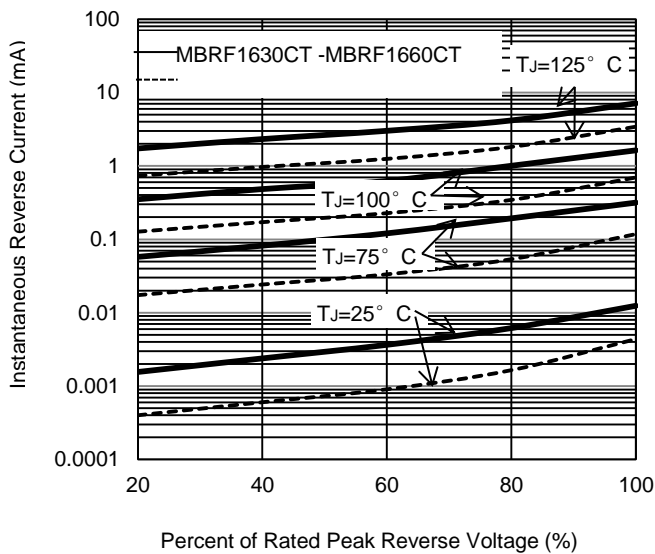


Fig. 4 - Typical Forward Characteristics

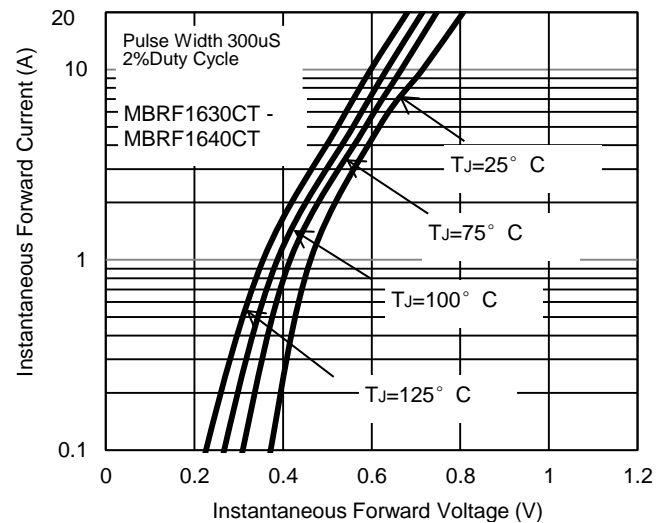


Fig. 5 - Typical Forward Characteristics

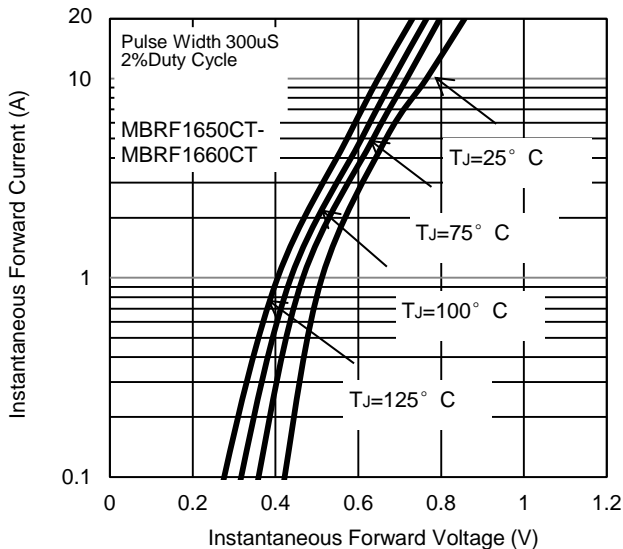
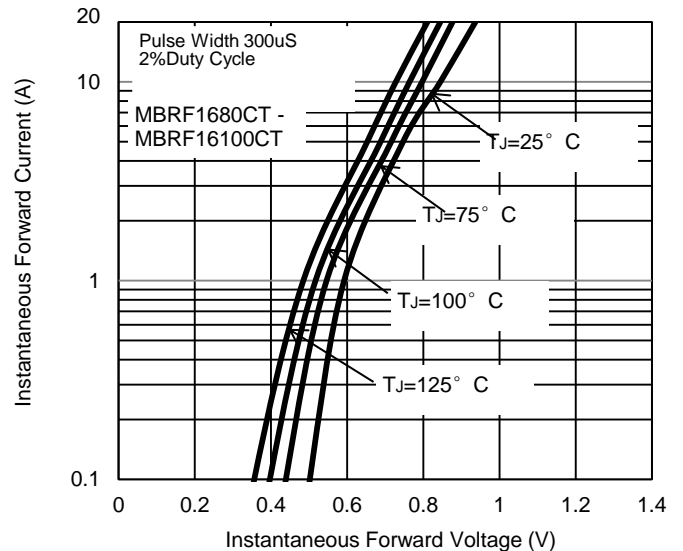


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.

Rating and Characteristic Curves

MBRF1630CT THRU MBRF16150CT



Fig. 7 - Typical Forward Characteristics

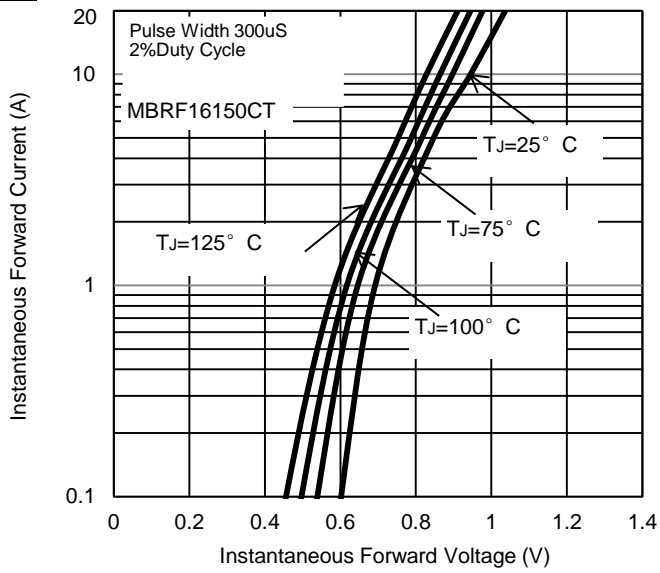
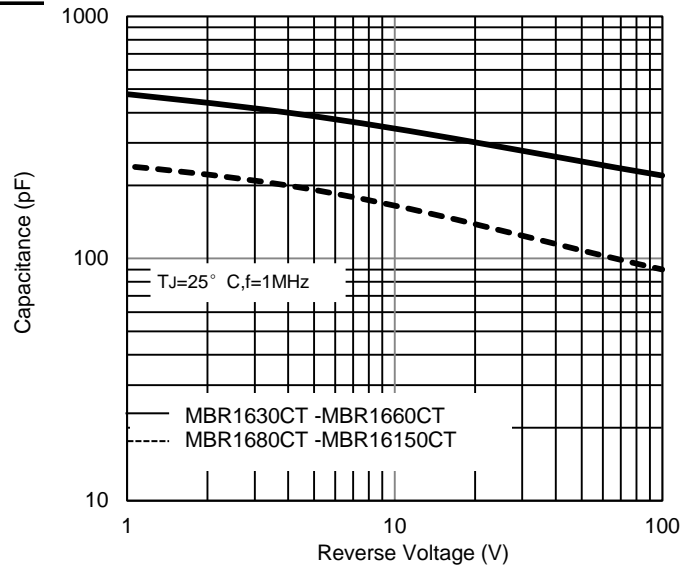


Fig. 8 - Typical Junction Capacitance



The curve above is for reference only.



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