



Schottky Barrier Rectifiers

Reverse Voltage - 30 to 150 Volts
Forward Current - 20.0 Amperes

Features

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

Mechanical Data

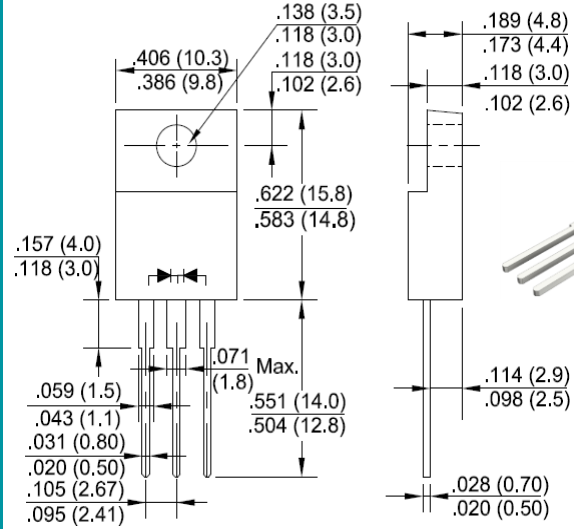
- Case: JEDEC ITO-220AB molded plastic
- Polarity: As marked on the body
- Mounting position: Any

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

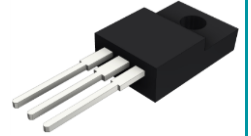
Applications

- 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	
		2030CT	2040CT	2050CT	2060CT	2080CT	20100CT	20150CT		
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 <sub(av)< sub=""></sub(av)<>	20.0							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=10A @T _J =25°C		0.80		0.85		0.95		V
		IF=10A @T _J =125°C		0.57		0.70		0.75		
		IF=20A @T _J =25°C		0.84		0.95		0.95		
		IF=20A @T _J =125°C		0.72		0.85		0.85		
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =125°C	I _R	0.1		0.1		0.1		0.1		mA
		15		10		7.5		5.0		
Typical Junction Capacitance (Note2)	C _J	400			320				pF	
Typical Thermal Resistance Junction to Case	R _{θJC}	1.5				3.5				°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.

Rating and Characteristic Curves

MBRF2030CT THRU MBRF20150CT



Fig. 1 - Forward Current Derating Curve

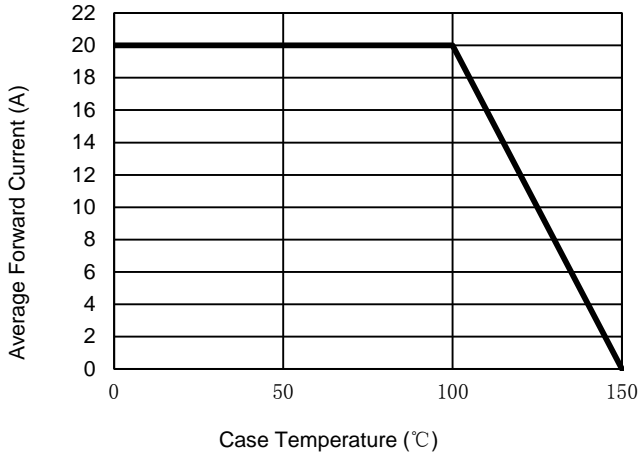


Fig. 2 - Maximum Non-Repetitive Surge Current

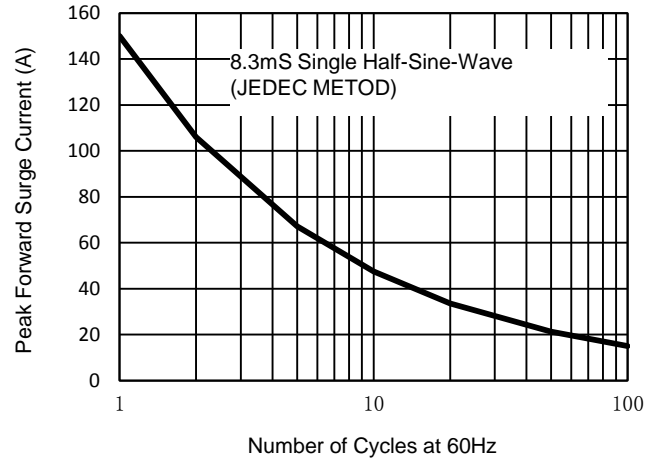


Fig. 3 - Typical Reverse Characteristics

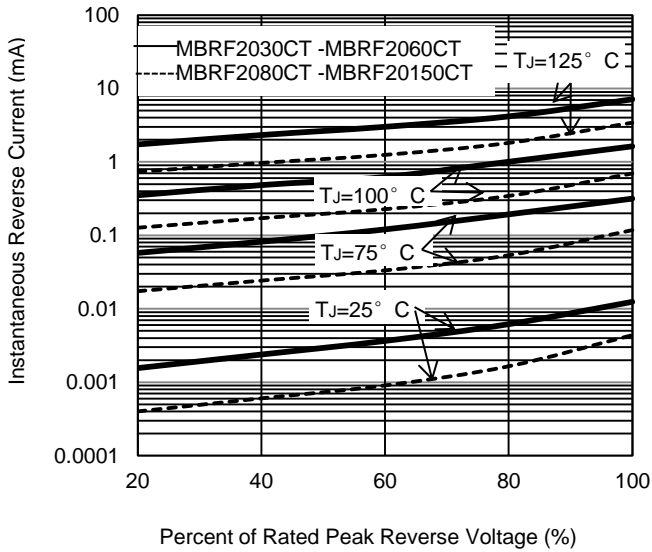


Fig. 4 - Typical Forward Characteristics

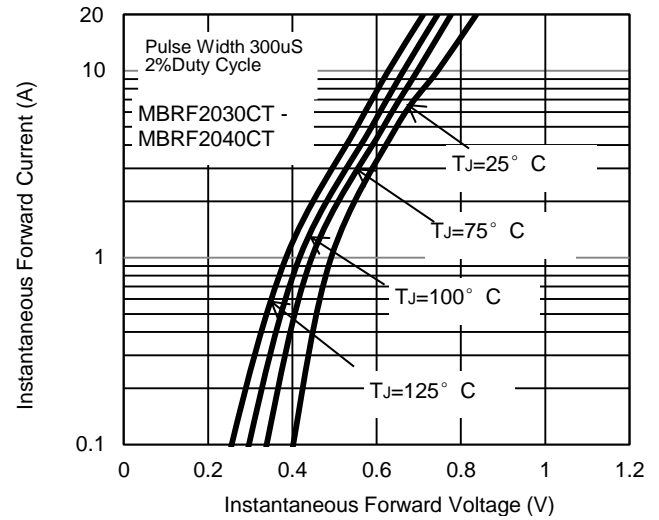


Fig. 5 - Typical Forward Characteristics

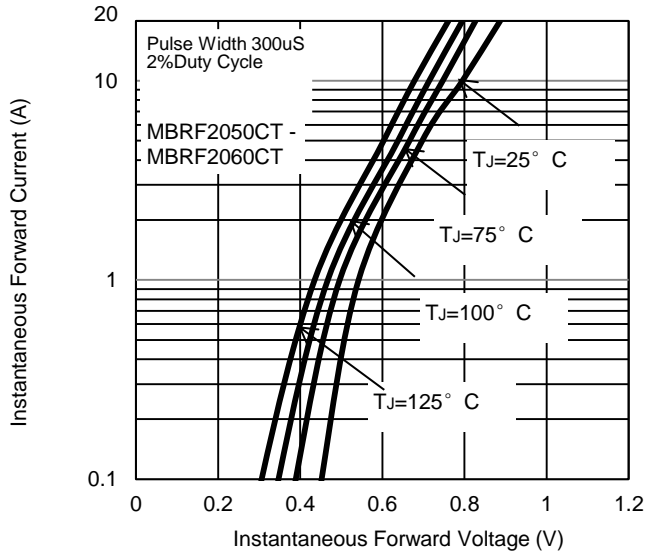
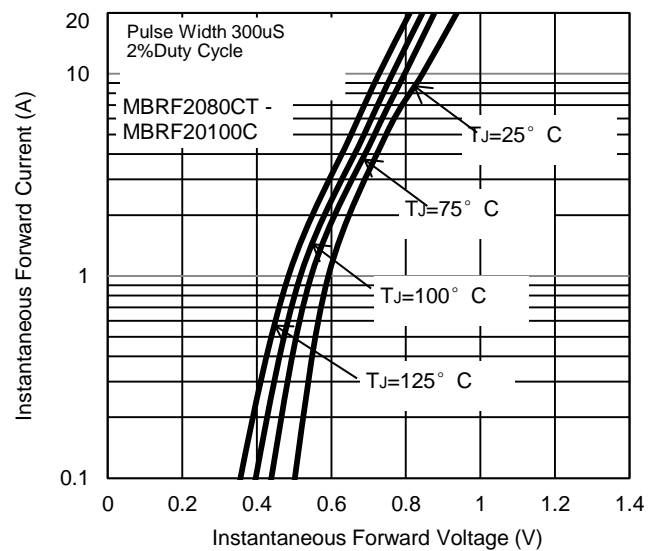


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.

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Rating and Characteristic Curves

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Fig. 7 - Typical Forward Characteristics

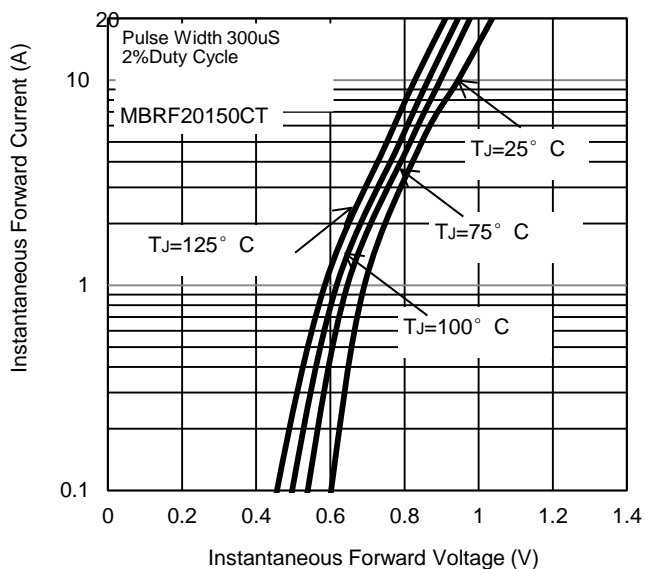
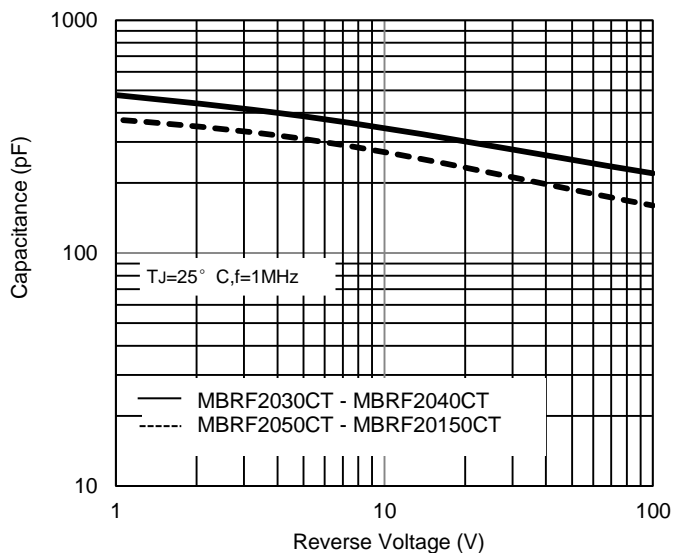


Fig. 8 - Typical Junction Capacitance



The curve above is for reference only.

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