



Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 30 to 100 Volts
Forward Current - 10.0 Amperes

Features

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

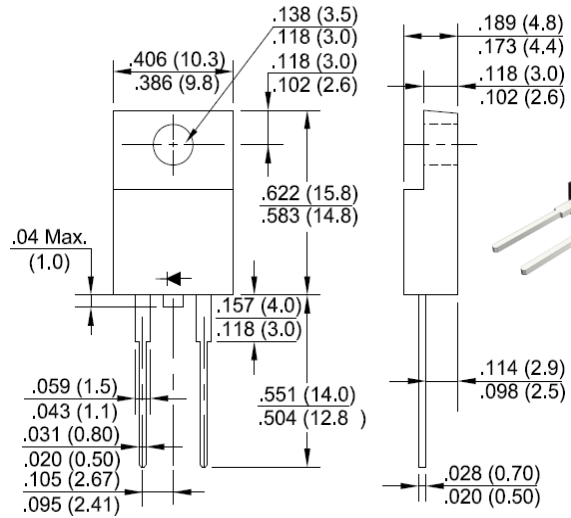
Mechanical Data

- 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



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 1030	MBRF 1040	MBRF 1050	MBRF 1060	MBRF 1080	MBRF 10100	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	30	40	50	60	80	100	V
Maximum RMS Voltage	V _{RMS}	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V _{DC}	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current	I <sub(av)< sub=""></sub(av)<>	10.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150						A
Peak Forward Voltage at 10.0 A DC (Note1) IF=10A @T _J =25°C	V _F	0.70		0.80		0.85		V
IF=10A @T _J =125°C		0.57		0.70		0.71		
IF=20A @T _J =25°C		0.84		0.95		-		
IF=20A @T _J =125°C		0.72		0.85		-		
Maximum DC Reverse Current @T _J =25°C	I _R	0.1		0.1		0.1		mA
at Rated DC Blocking Voltage @T _J =125°C		15		10		6.0		
Typical Junction Capacitance (Note2)	C _J	400				1100		pF
Typical Thermal Resistance Junction to Case	R _{θJC}	2.5				2.0		°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

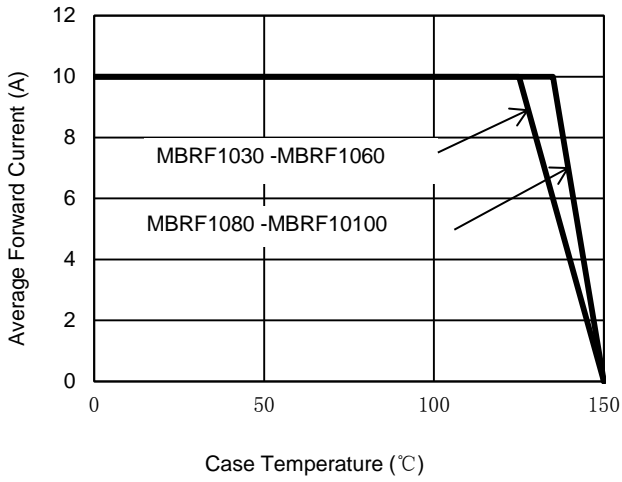


Fig. 2 - Maximum Non-Repetitive Surge Current

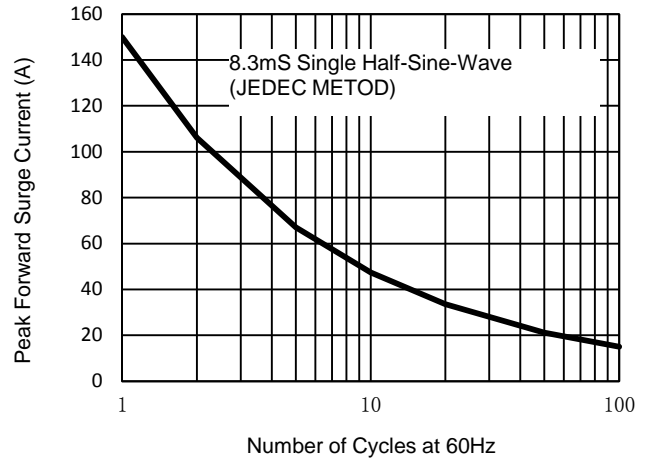


Fig. 3 - Typical Reverse Characteristics

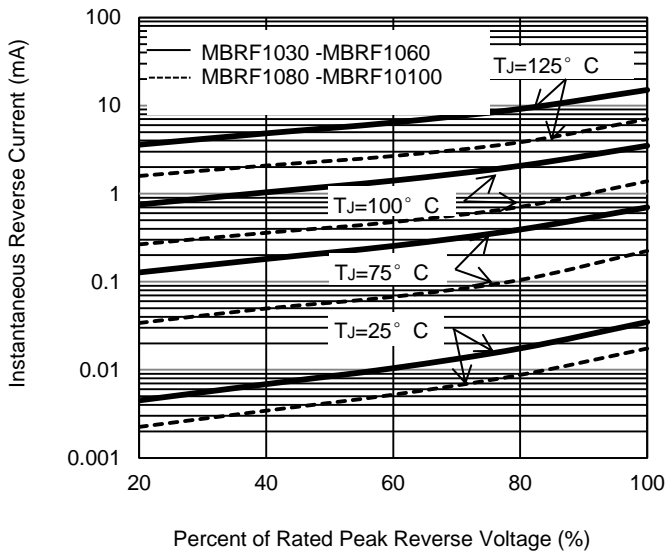


Fig. 4 - Typical Forward Characteristics

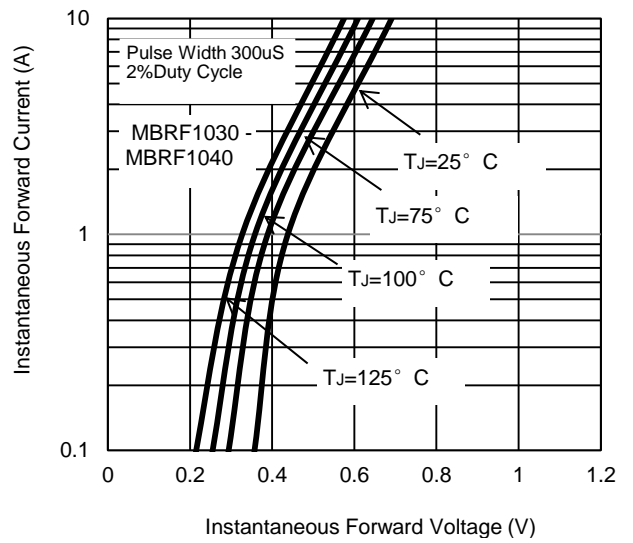


Fig. 5 - Typical Forward Characteristics

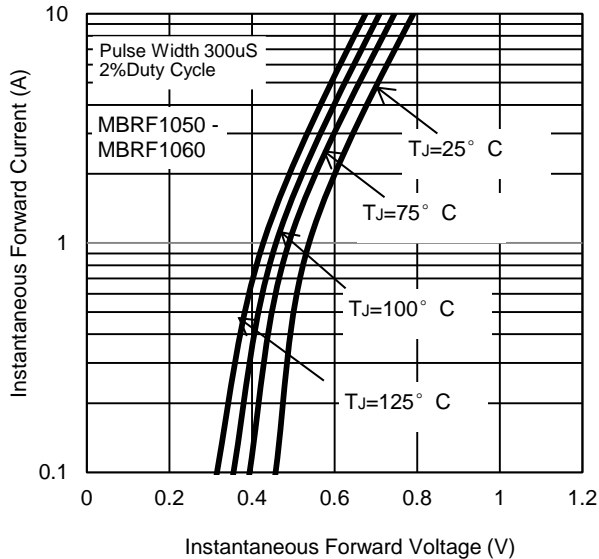
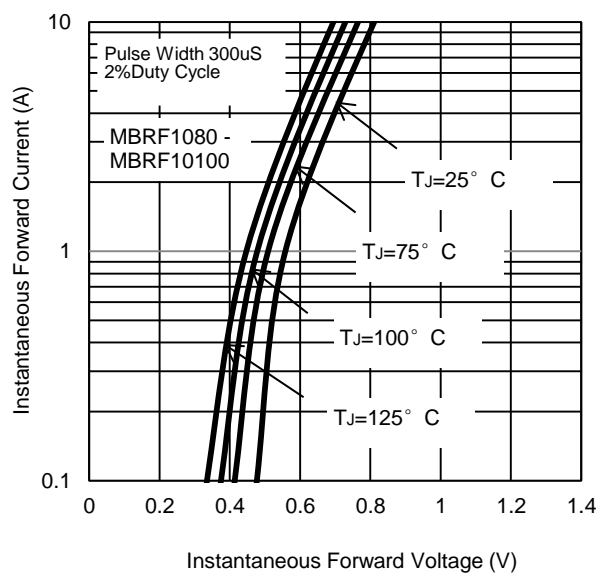


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.



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