



MBRF1630CT thru MBRF16150CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 30 to 150Volts
FORWARD CURRENT - 16.0 Amperes

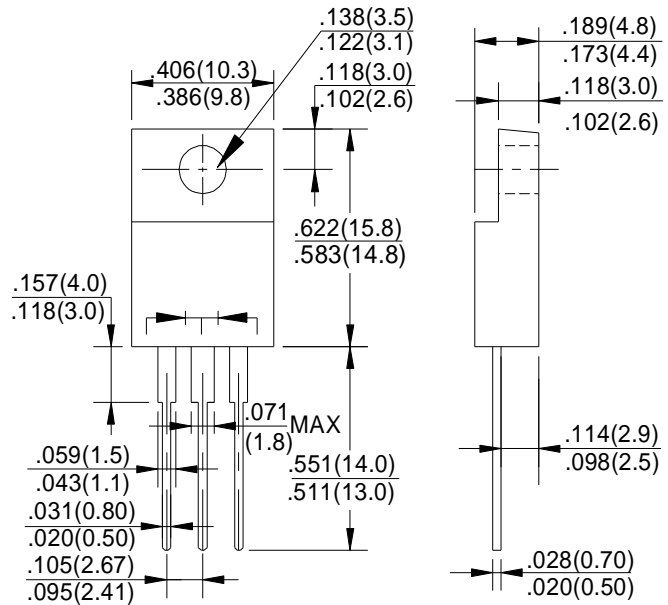
FEATURES

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High current capability,low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Polarity: As marked on the body
- Weight: 0.08ounces,2.24 grams
- Mounting position :Any

ITO-220AB



Dimensions in inches and (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 Recurrent 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 (See Fig.1)	I <sub(av)< sub=""></sub(av)<>	16.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	150							A
Peak Forward Voltage (Note1)	V _F	IF=8A @T _J =25°C 0.84 IF=8A @T _J =125°C 0.57 IF=16A @T _J =25°C 0.72 IF=16A @T _J =125°C -		0.75 0.65 - -		0.85 0.75 0.95 0.85		1.05 0.92 -	V
Maximum DC Reverse Current at Rated DC Bolcking Voltage	I _R		@T _J =25°C 0.3 @T _J =125°C 10				0.1 5		mA
Typical Junction Capacitance (Note2)	C _J		400				200		pF
Typical Thermal Resistance (Note3)	R _{θJC}	3.0							°C/W
Operating 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.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3.Thermal resistance junction to case.

REV. 1, 30-Dec-2011

RATING AND CHARACTERISTIC CURVES
MBRF1630CT thru MBRF16150CT



FIG. 1 – FORWARD CURRENT DERATING CURVE

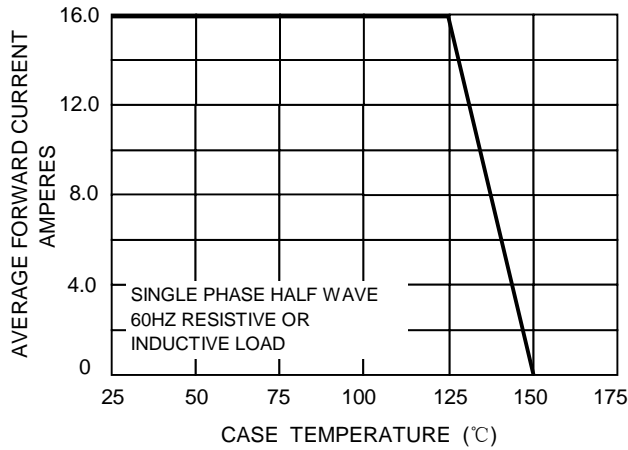


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

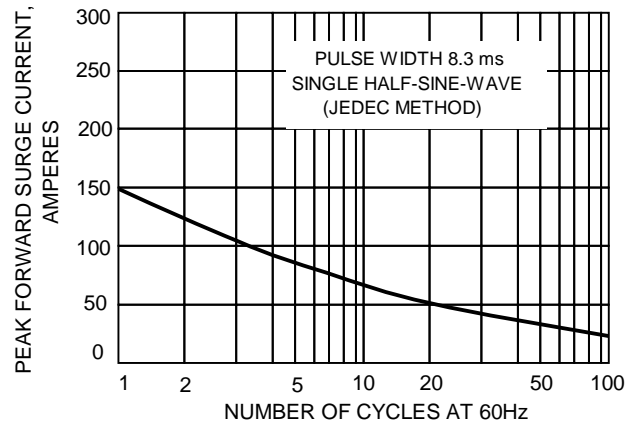


FIG.3-TYPICAL REVER CHARACTERISTICS

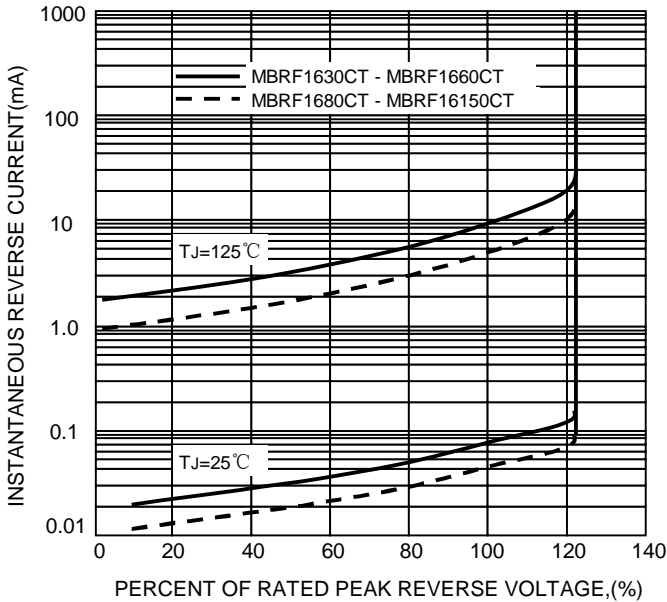


FIG.4-TYPICAL FORWARD CHARACTERISTICS

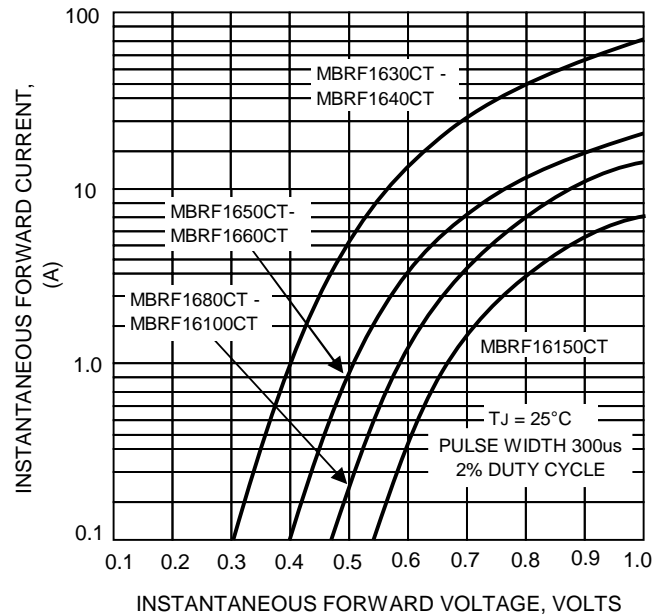


FIG.5 – TYPICAL JUNCTION CAPACITANCE

