

Features



- ✧ Low power loss, high efficiency
- ✧ High current capability, low forward voltage drop
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✧ High surge current capability
- ✧ Guard-ring for overvoltage protection
- ✧ For use in low voltage - high frequency inverter, free wheeling, and polarity protection application

VOLTAGE RANGE

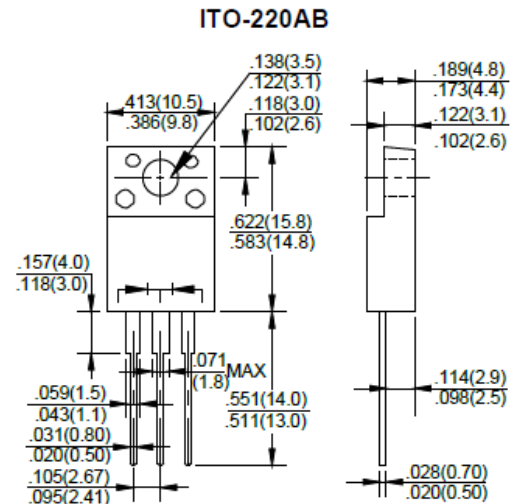
150 Volts

CURRENT

40.0 Ampere

Mechanical Data

- ✧ Terminals: Pure tin plated leads, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ Mounting position: Any
- ✧ Mounting torque: 5 in-lbs, max



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%

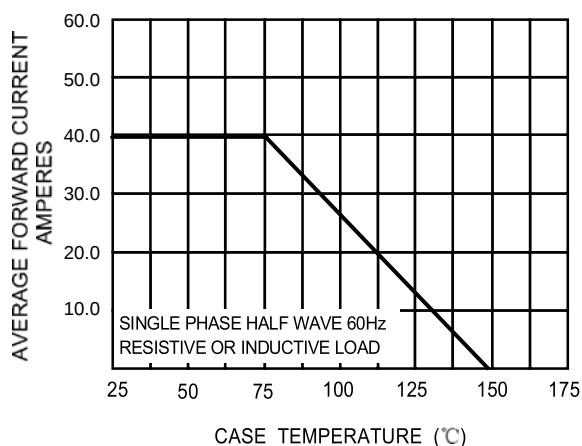
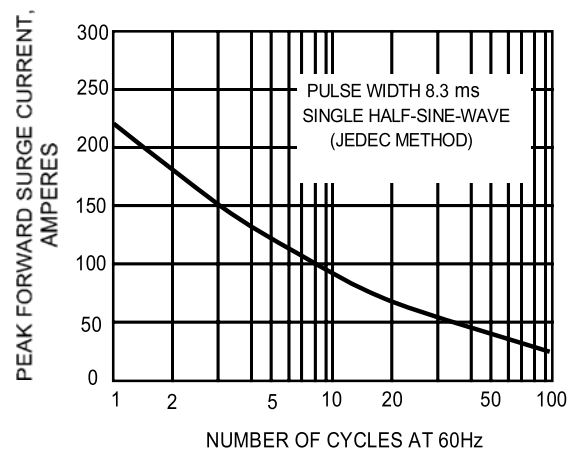
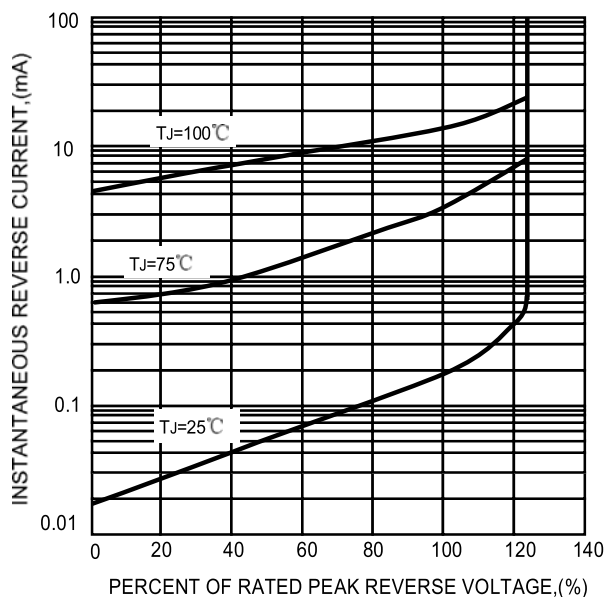
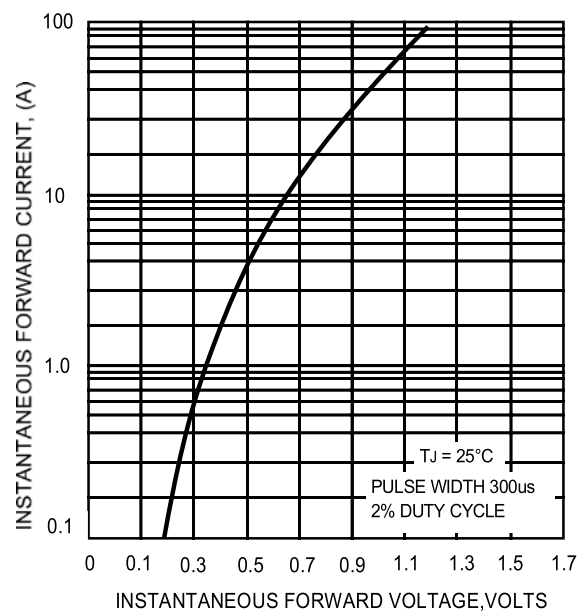
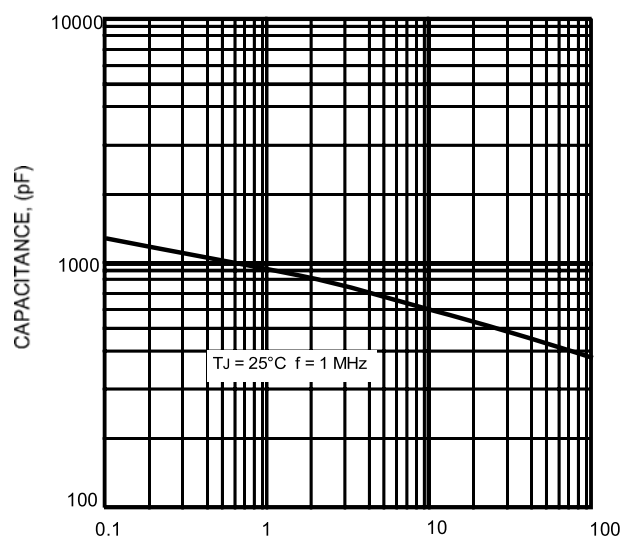
CHARACTERISTICS	SYMBOL	MBRF40150LCT	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	150	V
Maximum RMS Voltage	V _{RMS}	105	V
Maximum DC Blocking Voltage	V _{DC}	150	V
Maximum Average Forward Rectified Current (See Fig.1) @T _C =95 °C	I _(AV)	20	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	220	A
Peak Forward Voltage at 20.0A DC (@T _J =25°C) (@T _J = 125°C)	V _F	0.85	V
		0.75	V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	0.1	mA
		1.5	mA
Typical Junction Capacitance (Note2)	C _J	300	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 +150	°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.

4. The typical data above is for reference only (典型值仅供参考).

RATING AND CHARACTERISTIC CURVES
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 JUNCTION CAPACITANCE


The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!