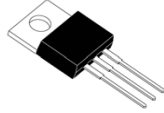




# MBR20300CT

## ULTRA LOW VF SCHOTTKY RECTIFIER

### 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

### 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
- ✧ Weight: 1.92 grams

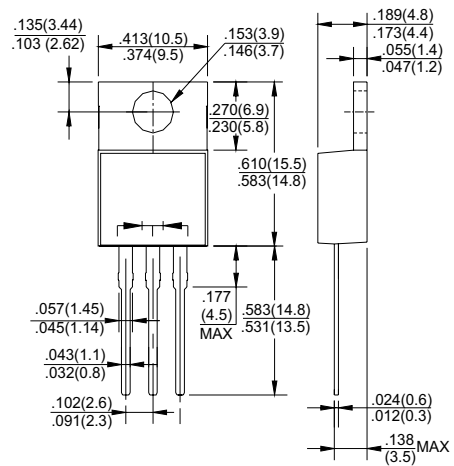
### VOLTAGE RANGE

300 Volts

### CURRENT

20.0 Ampere

#### TO-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	MBR20300CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	300	V
Maximum RMS Voltage	V <sub>RMS</sub>	210	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	300	V
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =95 °C	I <sub>(AV)</sub>	20	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150	A
Peak Forward Voltage at 10.0A DC (Note1)	V <sub>F</sub>	0.89	V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	0.1 15	mA
Typical Junction Capacitance (Note2)	C <sub>J</sub>	300	pF
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	3.0	°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-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**  
**MBR20300CT**

FIG. 1 – FORWARD CURRENT DERATING CURVE

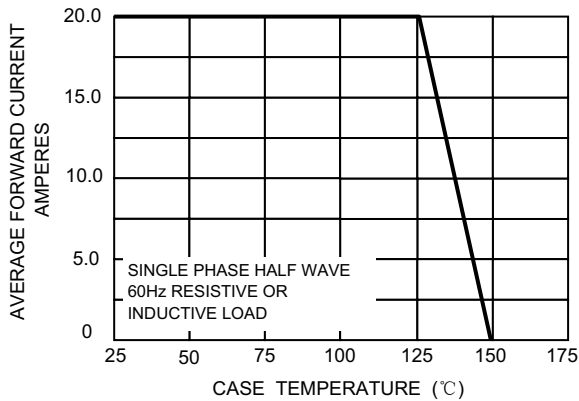


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

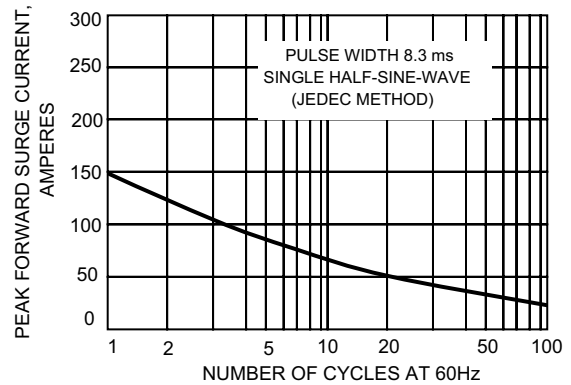


FIG.3-TYPICAL REVERES CHARACTERISTICS

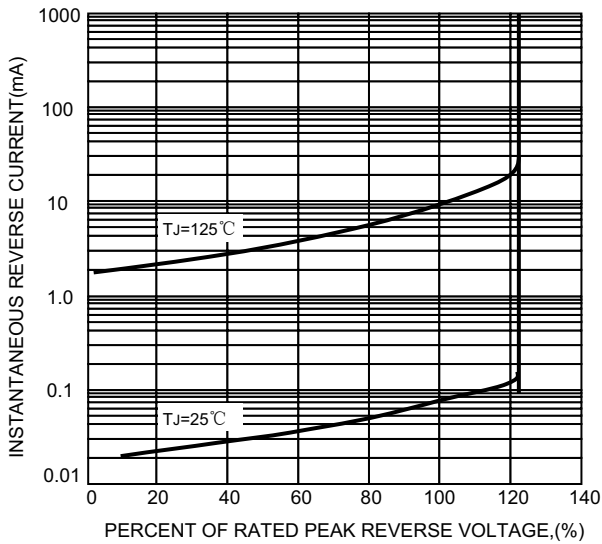


FIG.4-TYPICAL FORWARD CHARACTERISTICS

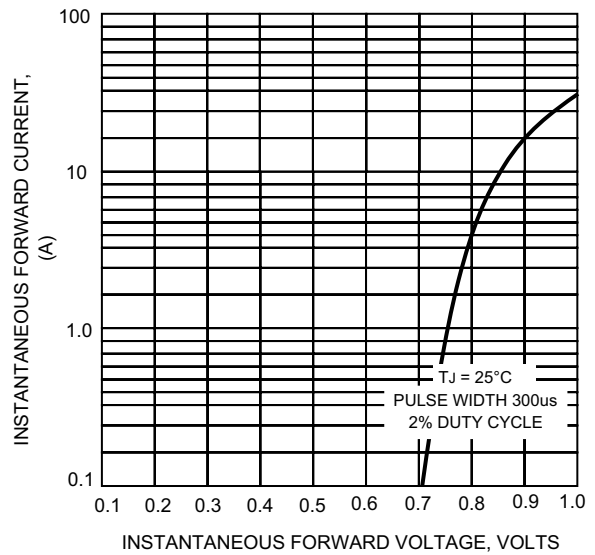
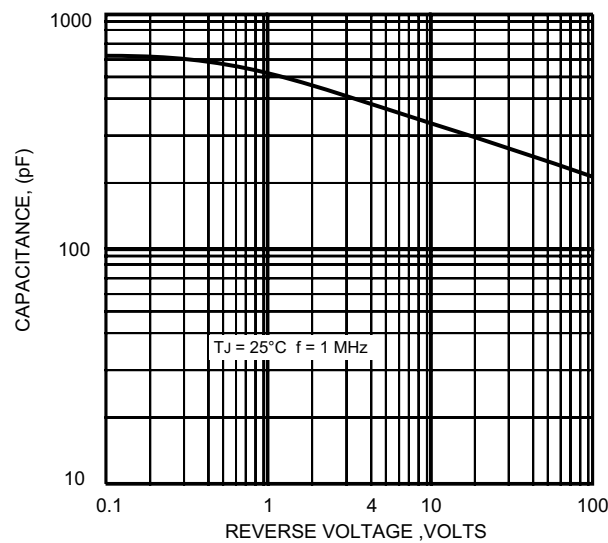


FIG.5 – TYPICAL JUNCTION CAPACITANCE



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