



# MBRF10200CT

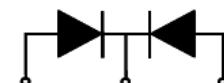
## Schottky Barrier Rectifier

### Features

- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Low forward voltage, high efficiency
- Guarding for over voltage protection
- For use in low voltage, high frequency inverters
- Free wheeling and polarity protection applications



CASE:TO-220F-AB



1. Anode 2. Cathode 3. Anode

### Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.9 grams (approximately)
- Finish: All external surfaces corrosion resistant and terminal leads are solderable
- Lead temperature for soldering purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube

### Maximum Ratings and Electronical Characteristics (TC=25°C unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MBRF10200CT	UNIT
Maximum repetitive peak reverse voltage			V <sub>RRM</sub>	200	V
Working peak reverse voltage			V <sub>RWM</sub>	200	V
Maximum DC blocking voltage			V <sub>DC</sub>	200	V
Maximum average forward rectified current at T <sub>c</sub> =105°C total device per diode			I <sub>F(AV)</sub>	10 5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I <sub>FSM</sub>	125	A
Peak repetitive reverse current per leg at t <sub>p</sub> =2.0us , 1KHz			I <sub>RRM</sub>	0.5	A
Voltage rate of change (rated VR)			DV/dt	10000	V/us
Operating junction temperature range			T <sub>J</sub>	-55 to+150	°C
Storage temperature range			T <sub>STG</sub>	-55 to+150	°C
Isolation voltage (TO220F-AB only) from terminal to heatsink t = 1 sec			V <sub>AC</sub>	1500	V
Maximum instantaneous forward voltage per leg	I <sub>F</sub> =5A I <sub>F</sub> =5A	T <sub>C</sub> =25°C T <sub>C</sub> =125°C	V <sub>F</sub>	0.92 0.82	V
Maximum reverse current per leg at working peak Reverse voltage		T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	500 7	uA mA

### Thermal Characteristics Ta=25°C unless otherwise noted

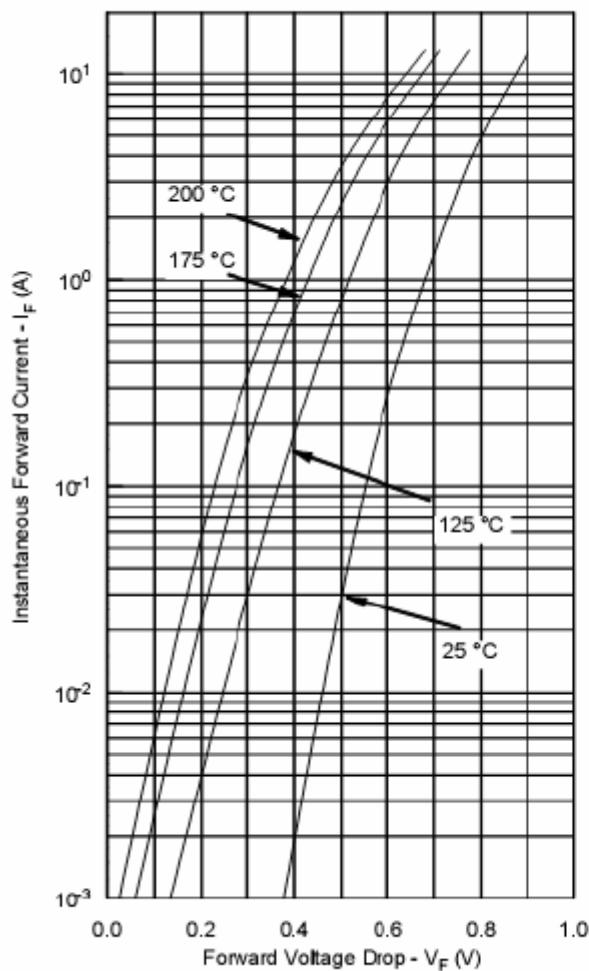
Symbol	Parameter	Max	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case per Leg	4.0	°C /W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient per Leg	62.5	°C /W

### Note:

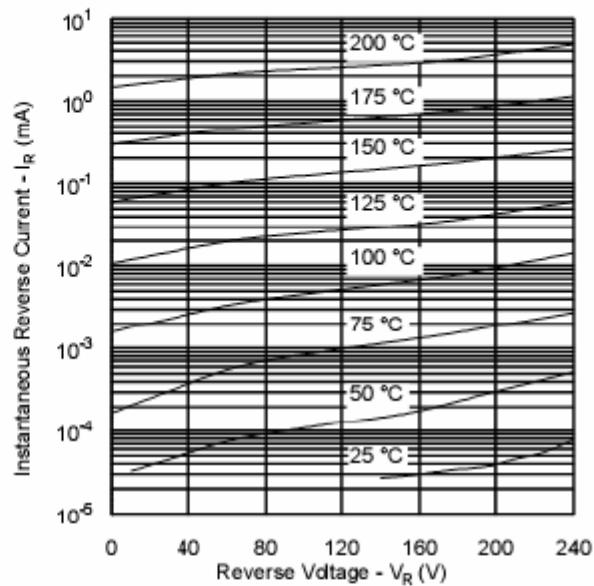
1. Screw mounting with 4-40 screw, where washer diameter is ≤ 4.9mm(0.19")
2. Pulse test: 300μs pulse width, 1% duty cycle

**Rating and Characteristic Curves (T<sub>c</sub>=25°C Unless otherwise noted)**

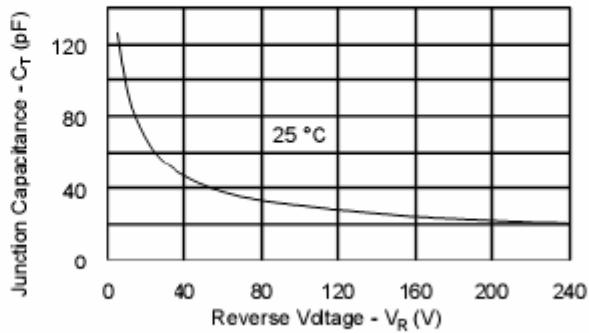
Typical Forward Characteristics



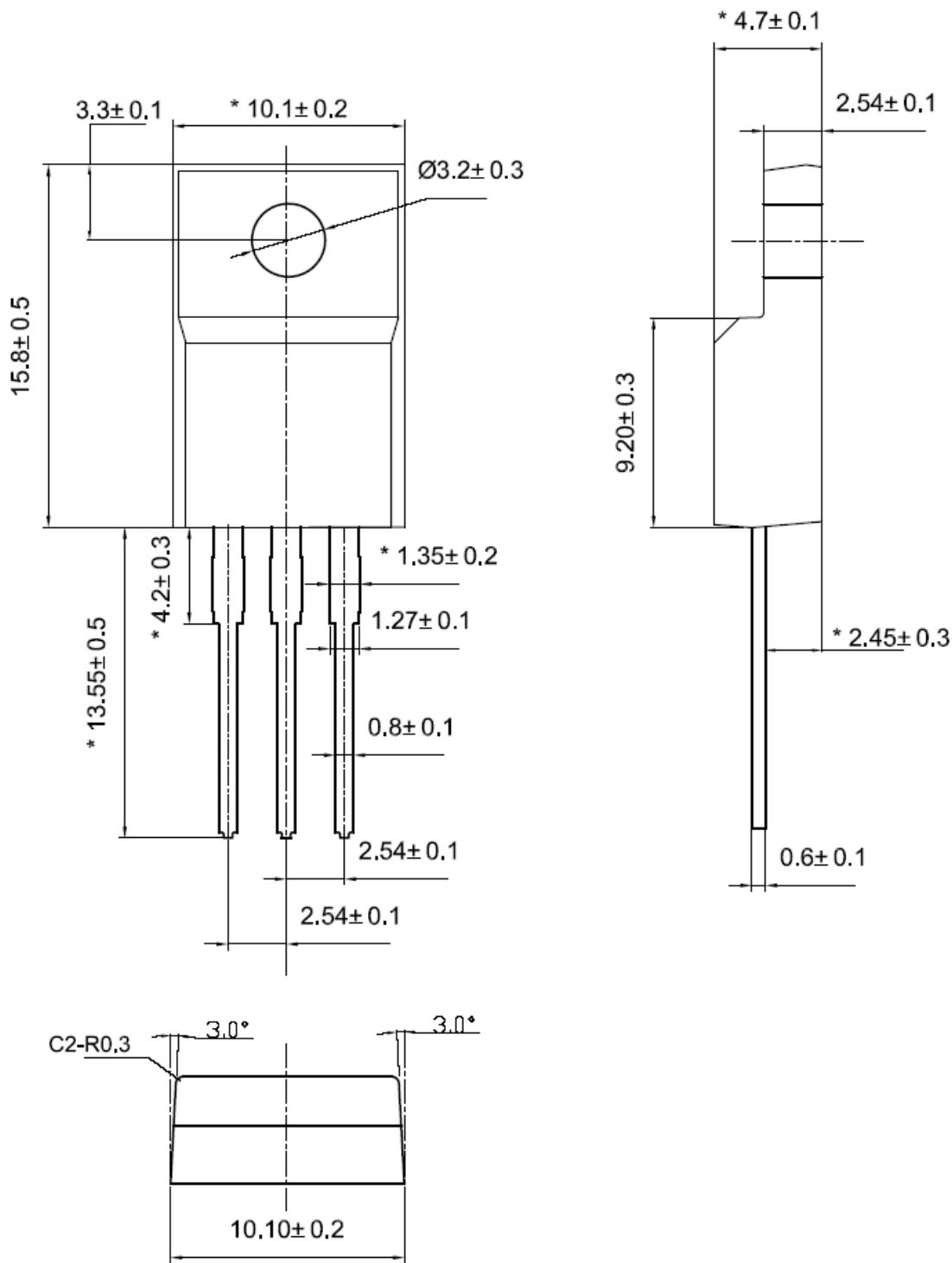
Typical Reverse Characteristics



Typical Junction Capacitance

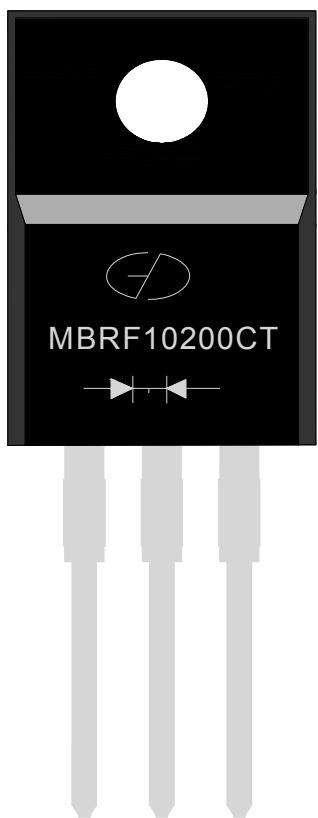


**Package Outline (TO-220F-AB) UNIT:MM**



Lead Frame Material : Copper      Plating: Pure Tin Plating

## MARKING



1. Part Name : MBRF10200CT
2. Logo Mark: 
3. Polarity: 