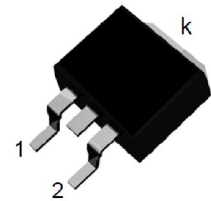


# MBRB20200CT

Schottky Barrier Rectifier  
Reverse Voltage 200 V Forward Current 20 A

## Features

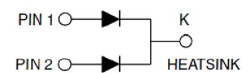
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Low forward voltage, high efficiency
- Guarding for over voltage protection



Package: TO-263

## Mechanical Data

- Case: epoxy, molded
- Weight: 1.4grams (approximately)
- Lead temperature for soldering purpose: 260°C max. for 10 sec
- 50 units per plastic tube or 800 pcs per reel



Schematic Diagram

## Maximum Ratings & Electrical Characteristics

(T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Test Conditions		Symbol	Value	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 @ T <sub>c</sub> =105°C	Total Device		I <sub>F(AV)</sub>	20	A
	Per Diode			10	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode			I <sub>FSM</sub>	150	A
Peak repetitive Reverse Current Per Leg at tp=2.0μs ,1KHz			I <sub>RRM</sub>	1.0	A
Voltage Rate of Change (rated V <sub>R</sub> )			Dv/dt	10000	V/μs
Operating Junction Temperature Range			T <sub>J</sub>	- 55 to+150	°C
Storage Temperature Range			T <sub>STG</sub>	- 55 to+150	°C
Maximum Instantaneous Forward Voltage per Leg	I <sub>F</sub> =10A	T <sub>C</sub> =25°C	V <sub>F</sub>	0.92	V
	I <sub>F</sub> =10A	T <sub>C</sub> =125°C		0.82	
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	T <sub>J</sub> =25°C		I <sub>R</sub>	200	μA
	T <sub>J</sub> =100°C			15	mA
<b>Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted)</b>					
<b>Symbol</b>	<b>Parameter</b>	<b>Typ.(TO-263)</b>			<b>Unit</b>
R <sub>θJC</sub>	Thermal Resistance, Junction to Case per Leg	2.0			°C/W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient per Leg	62.5			°C/W

**Note:** Pulse test:300us pulse width, duty cycle=2%

## Ratings and Characteristics Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

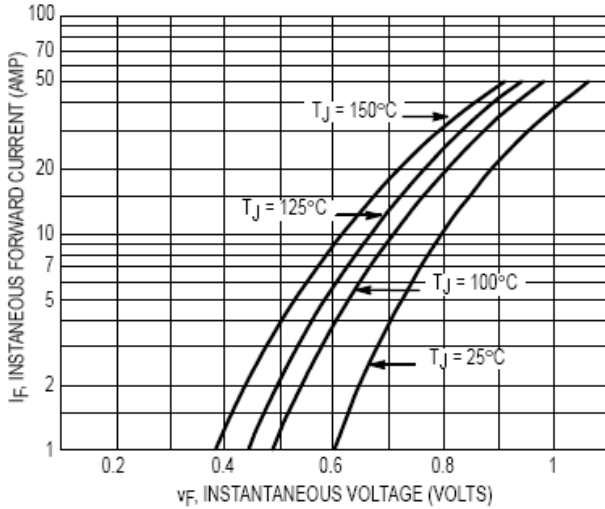


Figure 1. Typical Forward Voltage (Per Leg)

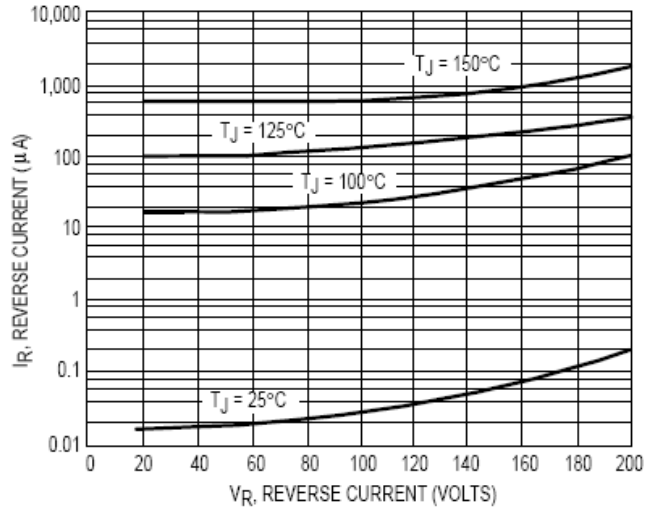


Figure 2. Typical Reverse Current (Per Leg)

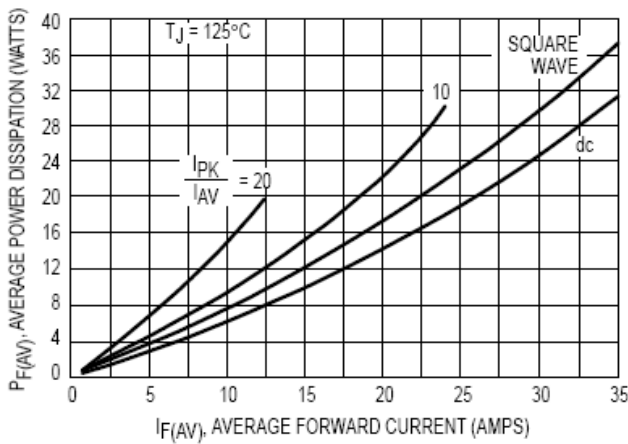


Figure 3. Forward Power Dissipation

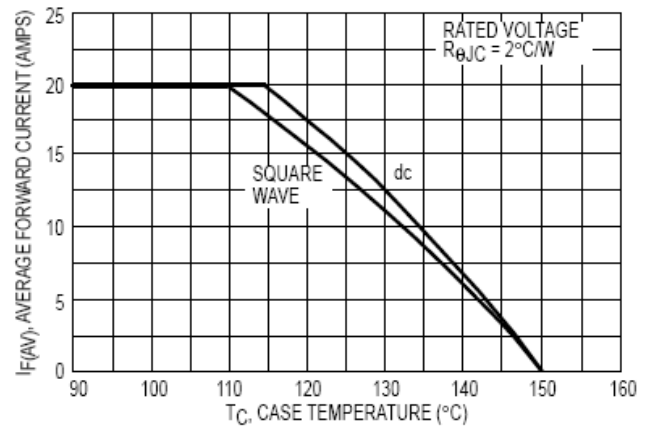


Figure 4. Current Derating, Case

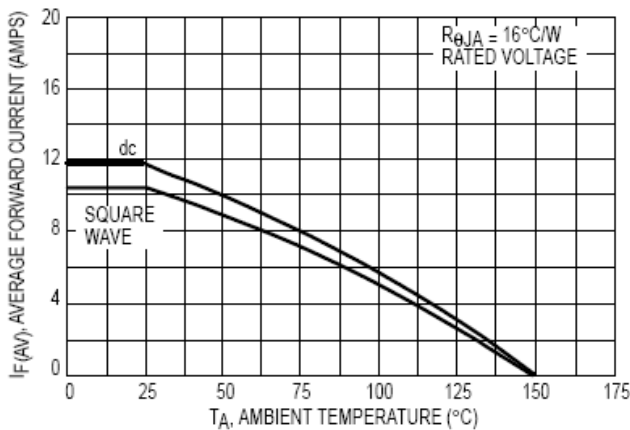


Figure 5. Current Derating, Ambient

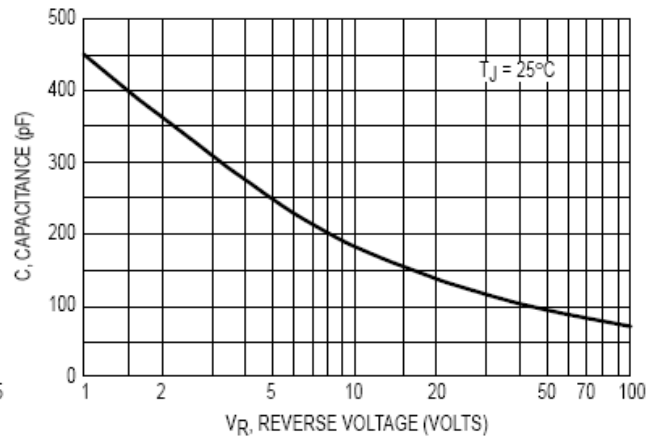
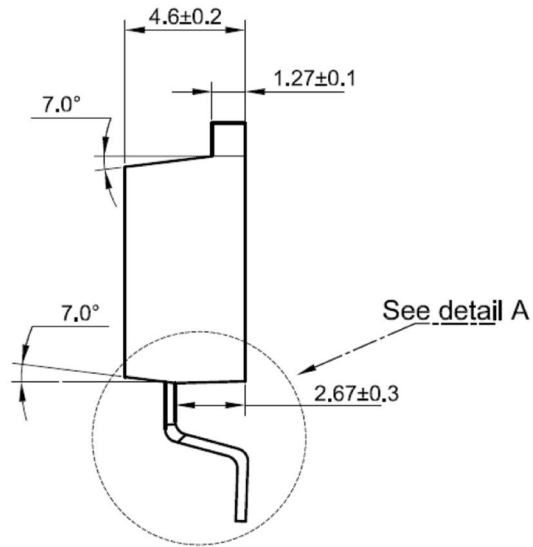
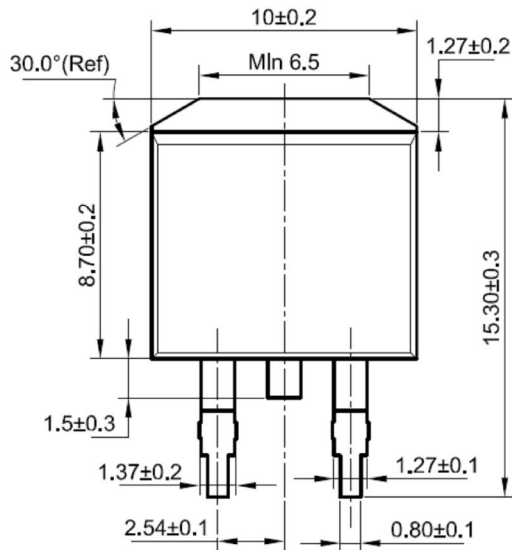


Figure 6. Typical Capacitance (Per Leg)

## Package Outline Dimensions

in millimeters

TO-263



### Detail A

