



MBR10200C

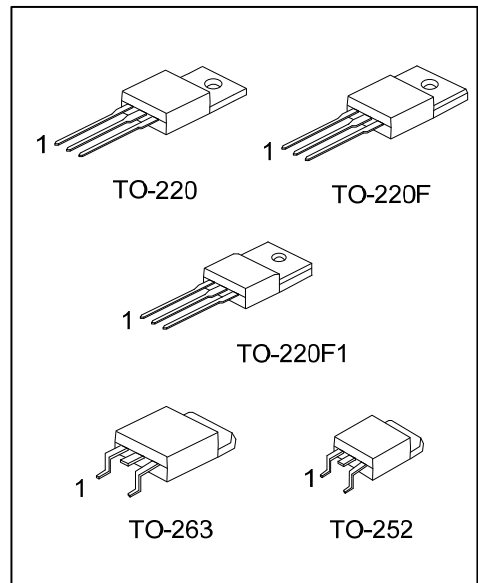
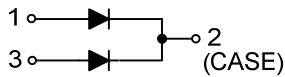
DIODE

SCHOTTKY BARRIER RECTIFIER

FEATURES

- * 10 amps total (5 amps per diode leg)
- * Guard ring for transient protection
- * Low forward voltage drop
- * High surge capability
- * Low power loss/High efficiency

SYMBOL



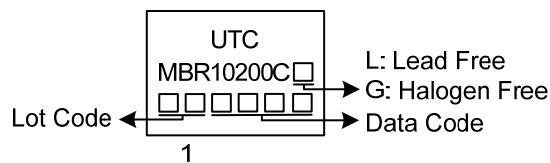
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR10200CL-TA3-T	MBR10200CG-TA3-T	TO-220	A	K	A	Tube
MBR10200CL-TF3-T	MBR10200CG-TF3-T	TO-220F	A	K	A	Tube
MBR10200CL-TF1-T	MBR10200CG-TF1-T	TO-220F1	A	K	A	Tube
MBR10200CL-TN3-R	MBR10200CG-TN3-R	TO-252	A	K	A	Tape Reel
MBR10200CL-TQ2-T	MBR10200CG-TQ2-T	TO-263	A	K	A	Tube
MBR10200CL-TQ2-R	MBR10200CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR10200CL-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TF1: TO-220F1 TN3: TO-252, TQ2: TO-263 (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	200	V
Maximum non-repetitive Peak Reverse Voltage		V_{RM}	200	V
Maximum DC Blocking Voltage		V_R	200	V
Average Forward Rectified Output Current	Per Leg	I_O	5	A
	Total		10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		I_{FSM}	150	A
Junction Capacitance (Note 4)		C_J	300	pF
Operating Temperature		T_J	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

■ THERMAL CHARACTERISTICS (PER LEG)

PARAMETER		SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	θ_{JC}	2	$^{\circ}\text{C}/\text{W}$
	TO-220F/TO-220F1		4	$^{\circ}\text{C}/\text{W}$
	TO-252		6	$^{\circ}\text{C}/\text{W}$

■ ELECTRICAL CHARACTERISTICS (Note 3)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop	V_F	$I_F=5\text{A}, T_C=25^{\circ}\text{C}$			0.95	V
		$I_F=5\text{A}, T_C=125^{\circ}\text{C}$			0.85	V
		$I_F=10\text{A}, T_C=25^{\circ}\text{C}$			1	V
		$I_F=10\text{A}, T_C=125^{\circ}\text{C}$			0.95	V
Instantaneous Reverse Current	I_R	Rated DC Voltage, $T_C=25^{\circ}\text{C}$			500	μA
		Rated DC Voltage, $T_C=125^{\circ}\text{C}$			20	mA

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

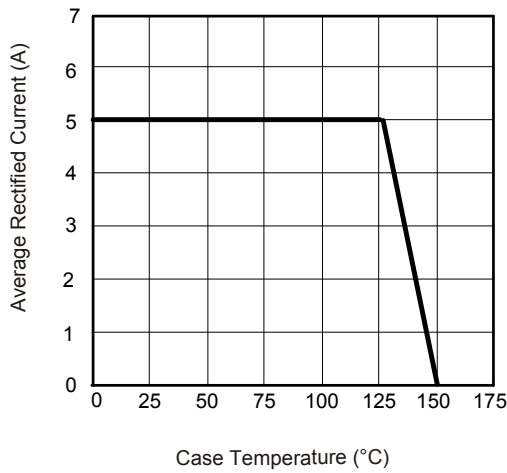
2. $2.0\mu\text{s}$ Pulse Width, $f = 1.0\text{KHz}$.

3. Pulse Test: Pulse Width = $300\mu\text{s}$, Duty Cycle $\leq 2.0\%$.

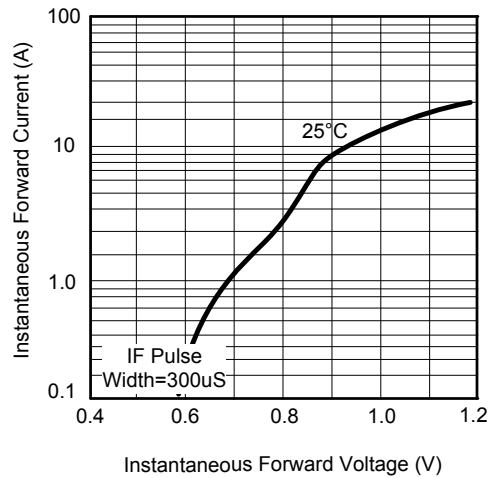
4. Applied $V_R = 4.0\text{V}$ and $f = 1.0\text{MHz}$.

■ TYPICAL CHARACTERISTICS

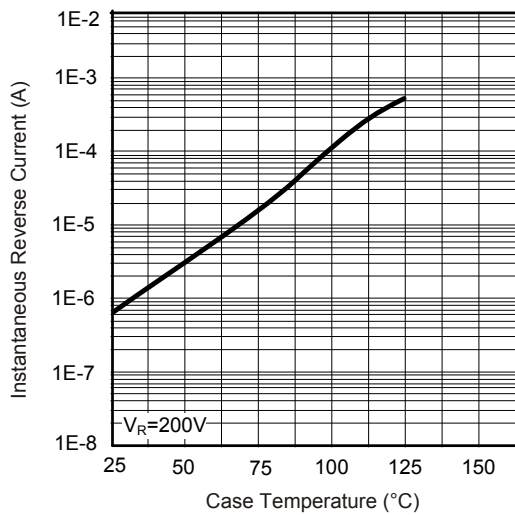
Forward Derating Curve



Typical Forward Characteristics



Typical Reverse Characteristics



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