



MBR10200C

Preliminary

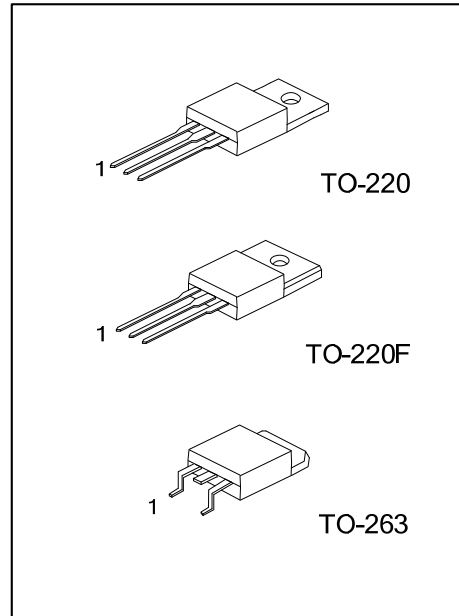
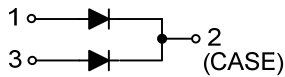
DIODE

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



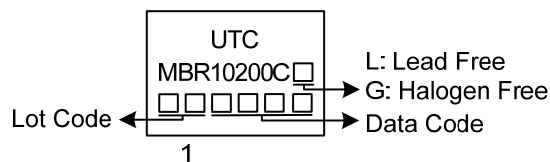
■ ORDERING INFORMATION

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-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) Packing Type</p> <p>(2) Package Type</p> <p>(3) Lead Free</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF3: TO-220F, TQ2: TO-263</p> <p>(3) L: Lead Free, G: Halogen Free</p>
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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	°C
Storage Temperature		T _{STG}	-65 ~ +150	°C

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		θ _{JA}	60	°C/W
Junction to Case	TO-220/TO-263	θ _{JC}	2	°C/W
	TO-220F		4	°C/W

■ ELECTRICAL CHARACTERISTICS (Note 3)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop	V _F	I _F =5A, T _C =25°C			0.90	V
		I _F =5A, T _C =125°C			0.85	V
		I _F =10A, T _C =25°C			1	V
		I _F =10A, T _C =125°C			0.95	V
Instantaneous Reverse Current	I _R	Rated DC Voltage, T _C =25°C			500	μA
		Rated DC Voltage, T _C =125°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.

- 2.0μs Pulse Width, f = 1.0KHz.
- Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2.0%.
- Applied V_R = 4.0V and f = 1.0MHz.

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