



MBR20200C

Preliminary

DIODE

SCHOTTKY BARRIER RECTIFIERS

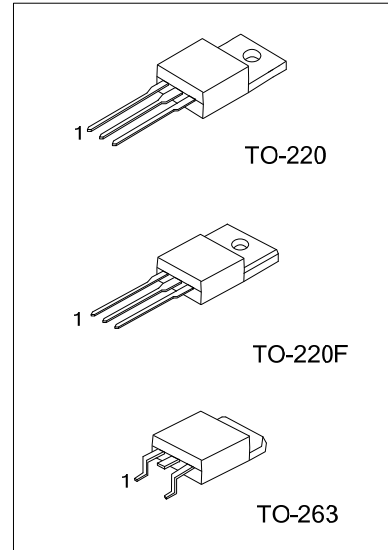
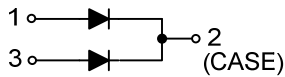
DESCRIPTION

The UTC **MBR20200C** is a Schottky Barrier Rectifier with high efficiency, low power dissipation and high current capacity. It can be applied in low voltage, high frequency inverters, polarity protection and free wheeling applications.

FEATURES

- * High surge capability
- * High efficiency, low power dissipation, high current capability, low forward voltage drop

SYMBOL



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR20200CL-TA3-T	MBR20200CG-TA3-T	TO-220	A	K	A	Tube
MBR20200CL-TF3-T	MBR20200CG-TF3-T	TO-220F	A	K	A	Tube
MBR20200CL-TQ2-T	MBR20200CG-TQ2-T	TO-263	A	K	A	Tube
MBR20200CL-TQ2-R	MBR20200CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR20200CL-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TQ2: TO-263 (3) G: Halogen Free, L: Lead Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Recurrent Peak Reverse Voltage	V _{RRM}	200	V
RMS Voltage	V _{R(RMS)}	140	V
DC Blocking Voltage	V _R	200	V
Average Forward Rectified Output Current	I _{OUT}	20	A
DC Reverse Current (T _C =25°C)	I _R	1.0	mA
Peak Repetitive Forward Current (Rated V _R , Square Wave, 20 kHz) (T _C =135°C)	I _{FRM}	20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	I _{FSM}	150	A
Peak Repetitive Reverse Surge Current (Note 3)	I _{RRM}	1.0	A
Voltage Rate of Change (Rated V _R)	dv/dt	10000	V/μs
Junction Capacitance (Note 4)	C _J	320	pF
Operating Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ _{JA}	60	°C/W
Junction to Case	θ _{JC}	4.5	

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 3)	V _F	I _F =10A, T _C =25°C			0.99	V
		I _F =10A, T _C =125°C			0.87	
		I _F =20A, T _C =25°C			1.23	
		I _F =20A, T _C =125°C			1.10	
Instantaneous Reverse Current (Note 3)	I _R	Rated DC Voltage, T _C =25°C			1.0	mA
		Rated DC Voltage, T _C =125°C			50	

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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