

**MBR20130C**

Preliminary

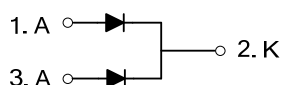
DIODE**20A SCHOTTKY BARRIER
RECTIFIER****■ DESCRIPTION**

The UTC **MBR20130C** is a 20A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc.

The UTC **MBR20130C** is suitable for free wheeling and polarity protection, etc.

■ FEATURES

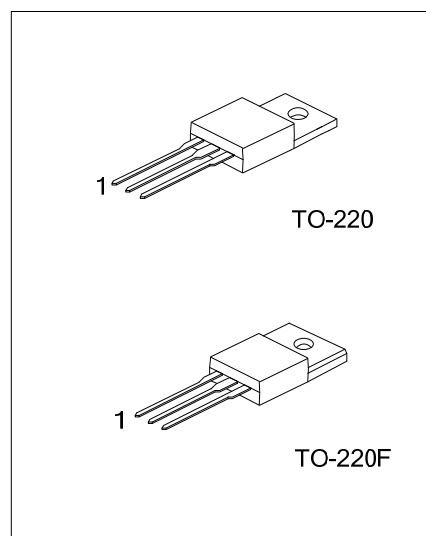
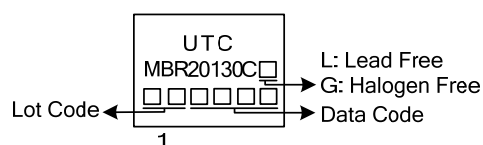
- * High surge capability
- * High efficiency
- * Low power Loss and low forward voltage drop

■ SYMBOL**■ ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR20130CL-TA3-T	MBR20130CG-TA3-T	TO-220	A	K	A	Tube
MBR20130CL-TF3-T	MBR20130CG-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

MBR20130CL-TA3-T (1) Packing Type (2) Package Type (3) Green Package	(1) T: Tube (2) TA3: TO-220, TF3: TO-220F (3) L: Lead Free, G: Halogen Free and Lead Free
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■ MARKING

■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Peak Repetitive Reverse Voltage		V _{RRM}	130	V
Working Peak Reverse Voltage		V _{RWM}	130	V
DC Blocking Voltage		V _R	130	V
RMS Reverse Voltage		V _{R(RMS)}	91	V
Average Forward Rectified Output Current (T _C =125°C)	Per Leg	I _O	10	A
	Total		20	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave		I _{FSM}	150	A
Junction Temperature		T _J	-55~+150	°C
Storage Temperature		T _{STG}	-55~+150	°C

Note: 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. Pulse width≤300μs, duty cycle≤2%.

■ THERMAL CHARACTERISTICS (PER LEG)

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		θ _{JA}	62.5	°C/W
Junction to Case	TO-220	θ _{JC}	2	°C/W
	TO-220F		2.2	

■ ELECTRICAL CHARACTERISTICS(Note 2)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop	V _F	I _F =10A, T _C =25°C			0.85	V
		I _F =10A, T _C =125°C		0.70	0.80	
		I _F =20A, T _C =25°C			0.95	
		I _F =20A, T _C =125°C		0.82	0.90	
Instantaneous Reverse Current	I _R	Rated DC Voltage, T _C =25°C			100	μA
		Rated DC Voltage, T _C =125°C			10	mA

Notes: 1. 2.0μs Pulse Width, f = 1.0KHz.

2. Pulse Test: Pulse Width=380μs, Duty Cycle ≤ 2.0%.

3. Applied V_R = 4.0V and f = 1.0MHz.

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