# UNISONIC TECHNOLOGIES CO., LTD

MBR2060C

# 20A SCHOTTKY BARRIER RECTIFIER

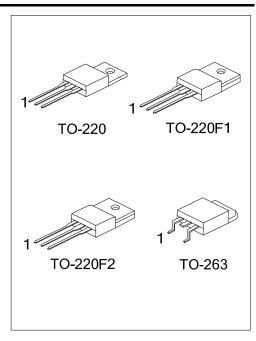
#### **■** DESCRIPTION

The UTC **MBR2060C** 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.

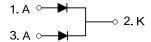
The UTC  ${\bf MBR2060C}$  is suitable for free wheeling and polarity protection, etc.

#### FEATURES

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



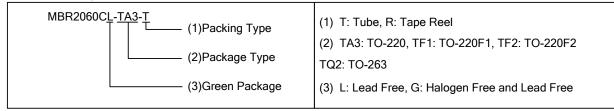
#### ■ SYMBOL



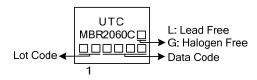
#### ■ ORDERING INFORMATION

Ordering Number		Dookono	Pin Assignment			Doolsing	
Lead Free	Halogen Free	Package	ge 1 2 3		3	Packing	
MBR2060CL-TA3-T	MBR2060CG-TA3-T	TO-220	Α	K	Α	Tube	
MBR2060CL-TF1-T	MBR2060CL-TF1-T MBR2060CG-TF1-T		Α	K	Α	Tube	
MBR2060CL-TF2-T	MBR2060CG-TF2-T	TO-220F2	Α	K	Α	Tube	
MBR1060CL-TQ2-T MBR1060CG-TQ2-T		TO-263	Α	K	Α	Tube	
MBR1060CL-TQ2-R	MBR1060CG-TQ2-R	TO-263	Α	K	Α	Tape Reel	

Note: Pin Assignment: A: Anode K: Cathode



#### ■ MARKING



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## ■ A BSOLUTE MAXIMUM RATING (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT	
Peak Repetitive Reverse Voltage		$V_{RRM}$	60	V	
Working Peak Reverse Voltage		$V_{RWM}$	60	V	
DC Blocking Voltage		$V_{R}$	60	V	
RMS Reverse Voltage		$V_{R(RMS)}$	42	V	
Average Forward Rectified Output	Per Leg		10	Α	
Current (T <sub>C</sub> =125°C)	Total	I <sub>O</sub>	20		
Non-Repetitive Peak Forward Surge Current 8.3ms Single			150	۸	
half sine-wave		I <sub>FSM</sub>	150	Α	
Typical Junction Capacitance		$C_{J}$	650	pF	
Junction Temperature		$T_J$	-55~+150	Ô	
Storage Temperature		T <sub>STG</sub>	-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.

### **■ THERMAL DATA**

PARAMETER		SYMBOL	RATINGS	UNIT	
Junction to Ambient		$\theta_{JA}$	60	°C/W	
Junction to Case	TO-220/TO-263	0	3	°C/A/	
	TO-220F/TO-220F1	$\theta_{ extsf{JC}}$	AJC	5	°C/W

## **■ ELECTRICAL CHARACTERISTICS**

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Instantaneous Forward Voltage Drop (Note 2)	V <sub>F</sub>	I <sub>F</sub> =10A, T <sub>C</sub> =25°C			0.80		
		I <sub>F</sub> =10A, T <sub>C</sub> =125°C			0.70	V	
		I <sub>F</sub> =20A, T <sub>C</sub> =25°C			0.95		
		I <sub>F</sub> =20A, T <sub>C</sub> =125°C			0.85		
Instantaneous Reverse Current (Note 2)	l D	Rated DC Voltage, T <sub>C</sub> =25°C			0.1	Л	
		Rated DC Voltage, T <sub>C</sub> =125°C			15	mA	

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

<sup>2.</sup> Pulse width≤300µs, duty cycle≤2%.

<sup>2.</sup> Pulse Test: Pulse Width=300µs, Duty Cycle≤ 2.0%.

<sup>3.</sup> Applied  $V_R = 4.0V$  and f = 1.0MHz.

MBR2060C

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