

## 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 **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

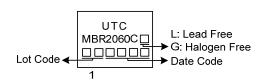
#### ORDERING INFORMATION

Ordering Number		Daakaga	Pin Assignment			Decking
Lead Free	Halogen Free	Package	1	2	3	Packing
MBR2060CL-TA3-T	MBR2060CG-TA3-T	TO-220	Α	К	Α	Tube
MBR2060CL-TF1-T	MBR2060CG-TF1-T	TO-220F1	Α	К	Α	Tube
MBR2060CL-TF2-T	MBR2060CG-TF2-T	TO-220F2	Α	К	Α	Tube
MBR2060CL-TN3-R	MBR2060CG-TN3-R	TO-252	Α	К	Α	Tape Reel
MBR2060CL-TQ2-T	MBR2060CG-TQ2-T	TO-263	Α	К	Α	Tube
MBR2060CL-TQ2-R	MBR2060CG-TQ2-R	TO-263	Α	К	Α	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

(2)Package Type	<ol> <li>T: Tube, R: Tape Reel</li> <li>TA3: TO-220, TF1: TO-220F1, TF2: TO-220F2 TN3: TO-252, TQ2: TO-263</li> <li>G: Halogen Free and Lead Free, L: Lead Free</li> </ol>
(3)Green Package	3) G: Halogen Free and Lead Free, L: Lead Free

#### MARKING



DIODE

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

PARAMETER		SYMBOL	RATINGS	UNIT
Peak Repetitive Reverse Voltage		V <sub>RRM</sub>	60	V
Working Peak Reverse Voltage		V <sub>RWM</sub>	60	V
DC Blocking Voltage		V <sub>R</sub>	60	V
RMS Reverse Voltage		V <sub>R(RMS)</sub>	42	V
Average Forward Rectified Output	Per Leg		10	А
Current (T <sub>C</sub> =125°C)	Total	lo	20	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave		I <sub>FSM</sub>	150	А
Typical Junction Capacitance		CJ	650	pF
Junction Temperature		ТJ	-55 ~ +150	°C
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. 2. Pulse width $\leq$ 300µs, duty cycle $\leq$ 2%.

## THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220/TO-220F TO-220F1/TO-263	θ <sub>JA</sub>	60	°C/W
	TO-252		100	°C/W
Junction to Case	TO-220/TO-263	θյς	2	°C/W
	TO-220F/TO-220F1		4	°C/W
	TO-252		2.5	°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	V
		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	V
		I <sub>F</sub> =20A, T <sub>C</sub> =125°C			0.85	V
Instantaneous Reverse Current		Rated DC Voltage, T <sub>C</sub> =25°C			0.1	mA
(Note 2)	I <sub>R</sub>	Rated DC Voltage, T <sub>C</sub> =125°C			15	mA

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

2. Pulse Test: Pulse Width =  $300\mu$ s, Duty Cycle  $\leq 2.0\%$ .

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



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