



# MBR2060C

**DIODE**

## 20A SCHOTTKY BARRIER RECTIFIER

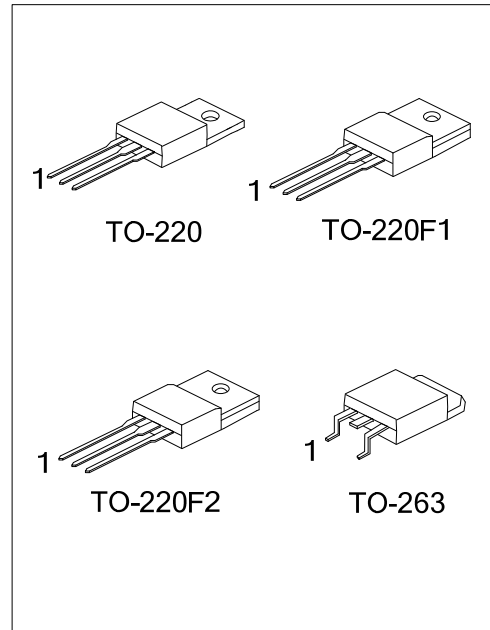
### DESCRIPTION

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.

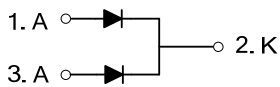
The UTC **MBR2060C** is suitable for free wheeling and polarity protection, etc.

### FEATURES

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



### SYMBOL



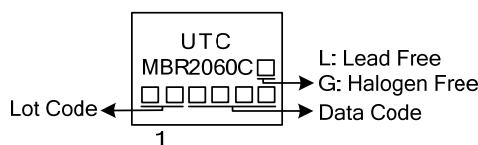
### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR2060CL-TA3-T	MBR2060CG-TA3-T	TO-220	A	K	A	Tube
MBR2060CL-TF1-T	MBR2060CG-TF1-T	TO-220F1	A	K	A	Tube
MBR2060CL-TF2-T	MBR2060CG-TF2-T	TO-220F2	A	K	A	Tube
MBR1060CL-TQ2-T	MBR1060CG-TQ2-T	TO-263	A	K	A	Tube
MBR1060CL-TQ2-R	MBR1060CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR2060CL-TA3-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF1: TO-220F1, TF2: TO-220F2 TQ2: TO-263</p> <p>(3) L: Lead Free, G: Halogen Free and Lead Free</p>
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### MARKING



■ ABSOLUTE MAXIMUM RATING ( $T_A=25^{\circ}\text{C}$ , 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 Current ( $T_C=125^{\circ}\text{C}$ )	Per Leg	$I_O$	10	A
	Total		20	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave		$I_{FSM}$	150	A
Typical Junction Capacitance		$C_J$	650	pF
Junction Temperature		$T_J$	-55~+150	$^{\circ}\text{C}$
Storage Temperature		$T_{STG}$	-55~+150	$^{\circ}\text{C}$

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 $\leq 300\mu\text{s}$ , duty cycle $\leq 2\%$ .

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		$\theta_{JA}$	60	$^{\circ}\text{C}/\text{W}$
Junction to Case	TO-220/TO-263	$\theta_{JC}$	3	$^{\circ}\text{C}/\text{W}$
	TO-220F/TO-220F1		5	

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 2)	$V_F$	$I_F=10\text{A}, T_C=25^{\circ}\text{C}$			0.80	V
		$I_F=10\text{A}, T_C=125^{\circ}\text{C}$			0.70	
		$I_F=20\text{A}, T_C=25^{\circ}\text{C}$			0.95	
		$I_F=20\text{A}, T_C=125^{\circ}\text{C}$			0.85	
Instantaneous Reverse Current (Note 2)	$I_R$	Rated DC Voltage, $T_C=25^{\circ}\text{C}$			0.1	mA
		Rated DC Voltage, $T_C=125^{\circ}\text{C}$			15	

Notes: 1.  $2.0\mu\text{s}$  Pulse Width,  $f = 1.0\text{KHz}$ .

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

3. Applied  $V_R = 4.0\text{V}$  and  $f = 1.0\text{MHz}$ .

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