



**MBR4060C**

Preliminary

**DIODE**

**40A SCHOTTKY BARRIER RECTIFIER**

■ DESCRIPTION

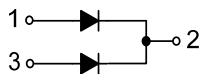
The UTC **MBR4060C** is a 40A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc.

The UTC **MBR4060C** is suitable for free wheeling and polarity protection, etc.

■ FEATURES

- \* Low Reverse Current
- \* Low Stored Charge, Majority Carrier Conduction
- \* Low Power Loss/High Efficiency
- \* Highly Stable Oxide Passivated Junction

■ SYMBOL



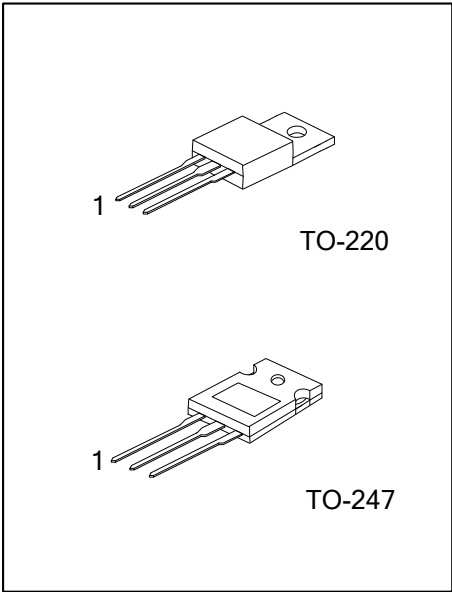
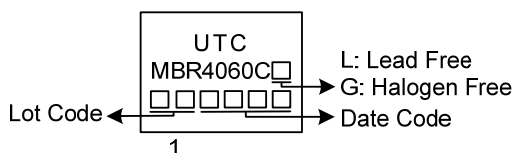
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR4060CL-TA3-T	MBR4060CG-TA3-T	TO-220	A	K	A	Tube
MBR4060CL-T47-T	MBR4060CG-T47-T	TO-247	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR4060CG-TA3-T</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) T: Tube (2) TA3: TO-220, T47: TO-247 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
---	---

■ MARKING



■ ABSOLUTE MAXIMUM RATING ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

Ratings at  $25^{\circ}\text{C}$  ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	60	V
Working Peak Reverse Voltage	$V_{RWM}$	60	V
Maximum RMS Reverse Voltage	$V_{RMS}$	42	V
DC Blocking Voltage	$V_R$	60	V
Average Rectified Output Current (Note 2) $T_C = 105^{\circ}\text{C}$	Per Leg	20	A
	Total	40	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	125	A
Junction Temperature	$T_J$	-55 ~ +150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

Note: 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	TO-220	62.5	$^{\circ}\text{C}/\text{W}$
	TO-247	40	$^{\circ}\text{C}/\text{W}$
Junction to Case	TO-220	2	$^{\circ}\text{C}/\text{W}$
	TO-247	0.5	$^{\circ}\text{C}/\text{W}$

■ ELECTRICAL CHARACTERISTICS (Per Leg) (Note 2) ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop	$V_F$	$I_F=20\text{A}$ , $T_C=25^{\circ}\text{C}$			0.83	V
		$I_F=20\text{A}$ , $T_C=125^{\circ}\text{C}$			0.77	V
Instantaneous Reverse Current	$I_R$	Rated DC Voltage, $T_C=25^{\circ}\text{C}$			1000	$\mu\text{A}$
		Rated DC Voltage, $T_C=125^{\circ}\text{C}$			100	mA

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

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

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.