



## MGBR30U60C

DIODE

### DUAL MOS GATED BARRIER RECTIFIER

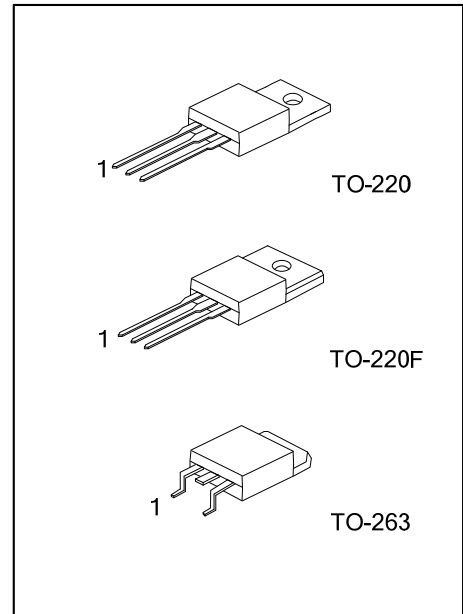
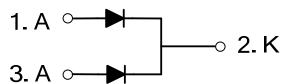
#### DESCRIPTION

The UTC **MGBR30U60C** is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

#### FEATURES

- \* Ultra low forward voltage drop
- \* High switching speed

#### SYMBOL



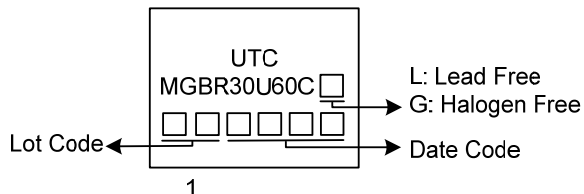
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR30U60CL-TA3-T	MGBR30U60CG-TA3-T	TO-220	A	K	A	Tube
MGBR30U60CL-TF3-T	MGBR30U60CG-TF3-T	TO-220F	A	K	A	Tube
MGBR30U60CL-TQ2-T	MGBR30U60CG-TQ2-T	TO-263	A	K	A	Tube
MGBR30U60CL-TQ2-R	MGBR30U60CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MGBR30U60CG-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, TF3: TO-220F, TQ2: TO-263</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



## ■ ABSOLUTE MAXIMUM RATINGS (PER LEG) (T<sub>A</sub>=25°C unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

PARAMETER		SYMBOL	RATINGS	UNIT
DC Blocking Voltage		V <sub>RM</sub>	60	V
Working Peak Reverse Voltage		V <sub>RWM</sub>	60	V
Peak Repetitive Reverse Voltage		V <sub>RRM</sub>	60	V
Average Rectified Output Current Per Device	Per Leg	I <sub>O</sub>	15	A
	Total		30	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I <sub>FSM</sub>	300	A
Operating Junction Temperature		T <sub>J</sub>	-65 ~ +150	°C
Storage Temperature		T <sub>STG</sub>	-65 ~ +150	°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 CHARACTERISTICS (PER LEG)

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		θ <sub>JA</sub>	62.5	°C/W
Junction to Case	TO-220	θ <sub>JC</sub>	2	°C/W
	TO-263			
	TO-220F		3.31	°C/W

## ■ ELECTRICAL CHARACTERISTICS (PER LEG) (T<sub>A</sub>=25°C unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	V <sub>(BR)R</sub>	I <sub>R</sub> =0.60mA	60			V
Forward Voltage Drop	V <sub>FM</sub>	I <sub>F</sub> =15A, T <sub>J</sub> =25°C			0.55	V
		I <sub>F</sub> =15A, T <sub>J</sub> =125°C			0.45	V
Leakage Current (Note 1)	I <sub>RM</sub>	V <sub>R</sub> =60V, T <sub>J</sub> =25°C			500	μA
		V <sub>R</sub> =60V, T <sub>J</sub> =125°C			100	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

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