



# MGBR20L60C

**DIODE**

## DUAL MOS GATED BARRIER RECTIFIERS

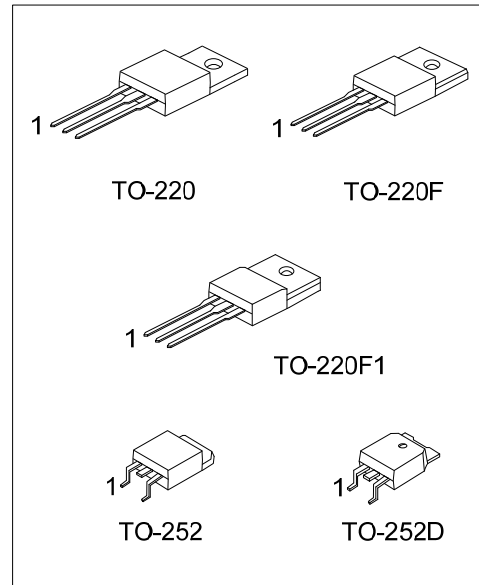
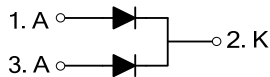
### DESCRIPTION

The UTC **MGBR20L60C** is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with high current capability, low forward voltage and high switching speed, etc.

### FEATURES

- \* Low forward voltage
- \* High switching speed
- \* High current capability

### SYMBOL



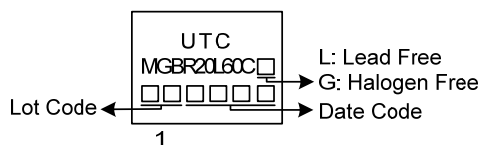
### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20L60CL-TA3-T	MGBR20L60CG-TA3-T	TO-220	A	K	A	Tube
MGBR20L60CL-TF1-T	MGBR20L60CG-TF1-T	TO-220F1	A	K	A	Tube
MGBR20L60CL-TF3-T	MGBR20L60CG-TF3-T	TO-220F	A	K	A	Tube
MGBR20L60CL-TN3-R	MGBR20L60CG-TN3-R	TO-252	A	K	A	Tape Reel
MGBR20L60CL-TND-R	MGBR20L60CG-TND-R	TO-252D	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Common Cathode

<p>MGBR20L60CG-TA3-T</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF1: TO-220F1, TF3: TO-220F, TN3: TO-252, TND: TO-252D (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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### MARKING



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

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 Forward Current	Per Leg	I <sub>O</sub>	10	A
	Total		20	A
Peak Forward Surge Current		I <sub>FSM</sub>	150	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 DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220/TO-220F	θ <sub>JA</sub>	62.5	°C/W
	TO-220F1			
	TO-252/TO-252D			
Junction to Case	TO-220	θ <sub>JC</sub>	2	°C/W
	TO-220F/ TO-220F1		3.31	
	TO-252/TO-252D		2.5 (Note)	

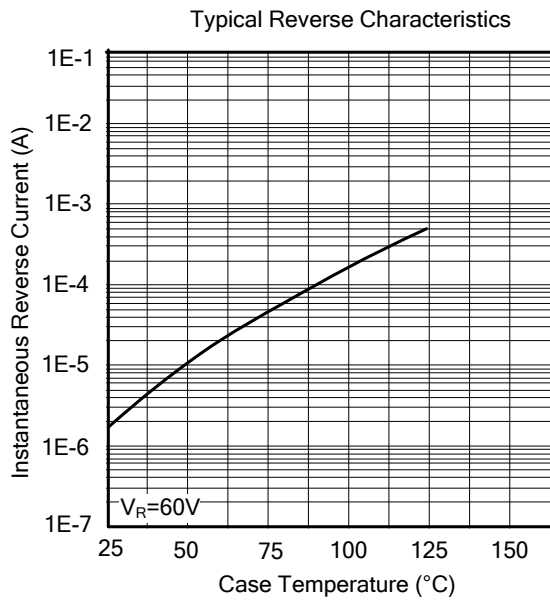
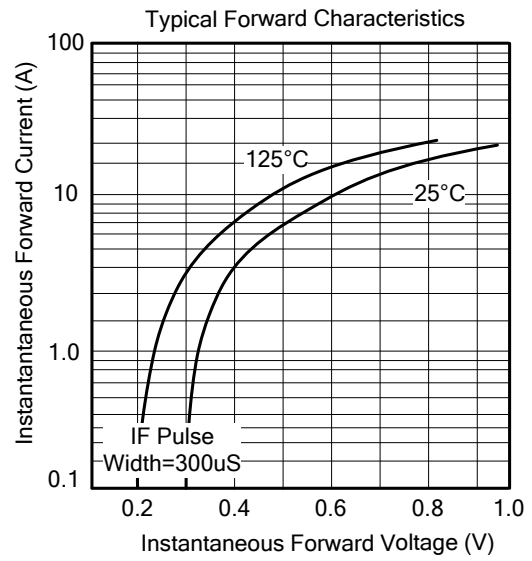
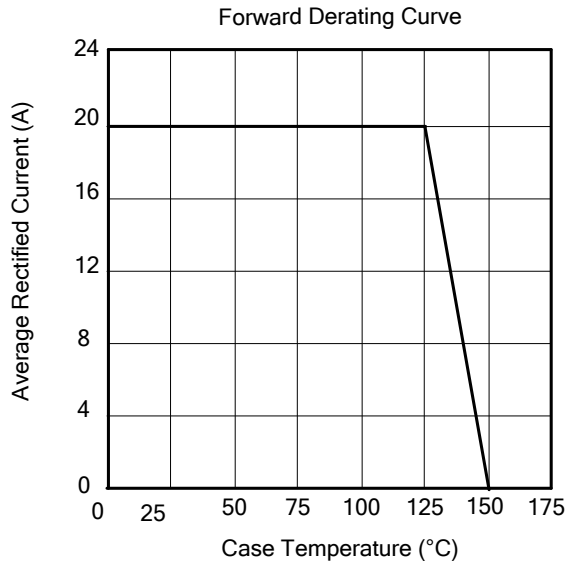
Note: Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

■ ELECTRICAL CHARACTERISTICS (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> =0.50mA	60			V	
Instantaneous Forward Voltage	V <sub>FM</sub>	I <sub>F</sub> =5A, T <sub>J</sub> =25°C		0.46		V	
		I <sub>F</sub> =5A, T <sub>J</sub> =125°C		0.41		V	
		I <sub>F</sub> =10A, T <sub>J</sub> =25°C			0.64		V
		I <sub>F</sub> =10A, T <sub>J</sub> =125°C			0.59		V
Instantaneous Reverse Current (Note 1)	I <sub>RM</sub>	V <sub>RM</sub> =60V, T <sub>J</sub> =25°C			300	μA	
		V <sub>RM</sub> =60V, T <sub>J</sub> =125°C			20	mA	

Notes: 1. Short duration pulse test used to minimize self-heating effect.  
2. Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS



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