



**MGBR20V60C**

Preliminary

**DIODE**

**DUAL MOS GATED BARRIER RECTIFIERS**

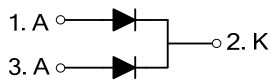
■ DESCRIPTION

The UTC **MGBR20V60C** 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

- \* Very low forward voltage
- \* High switching speed
- \* High current capability

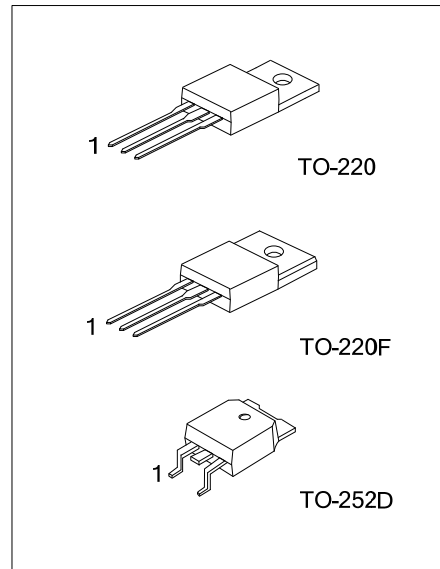
■ SYMBOL



■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Lead Free	Halogen Free			1	2	3	
MGBR20V60CL-TA3-T	MGBR20V6	0CG-TA3-T	TO-220	A	K	A	Tube
MGBR20V60CL-TF3-T	MGBR20V6	0CG-TF3-T	TO-220F	A	K	A	Tube
MGBR20V60CL-TND-T	MGBR20V6	0CG-TND-T	TO-252D	A	K	A	Tube
MGBR20V60CL-TND-R	MGBR20V6	0CG-TND-R	TO-252D	A	K	A	Tape Reel

<p>MGBR20V60CL-TA3-T</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Lead Free</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF3: TO-220F, TND: TO-252D</p> <p>(3) L: Lead Free, G: Halogen Free</p>
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■ 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>	180	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-252D		2.5	
Junction to Case	TO-220F	θ <sub>JC</sub>	3.31	°C/W
	TO-220/TO-252D		2	

■ 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> =0.60mA 60				V	
Instantaneous Forward Voltage	V <sub>FM</sub>	I <sub>F</sub> =5A, T <sub>J</sub> =25°C		0.44		V	
		I <sub>F</sub> =5A, T <sub>J</sub> =125°C		0.39		V	
		I <sub>F</sub> =10A, T <sub>J</sub> =25°C			0.59		V
		I <sub>F</sub> =10A, T <sub>J</sub> =125°C			0.54		V
Instantaneous Reverse Current (Note 1)	I <sub>RM</sub>	V <sub>RM</sub> =60V, T <sub>J</sub> =25°C			500	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.

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