



MGBR20U60C

Preliminary

DIODE

DUAL MOS GATED BARRIER RECTIFIERS

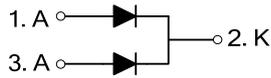
■ DESCRIPTION

The UTC **MGBR20U60C** 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

- * Ultra low forward voltage
- * High switching speed
- * High current capability

■ SYMBOL



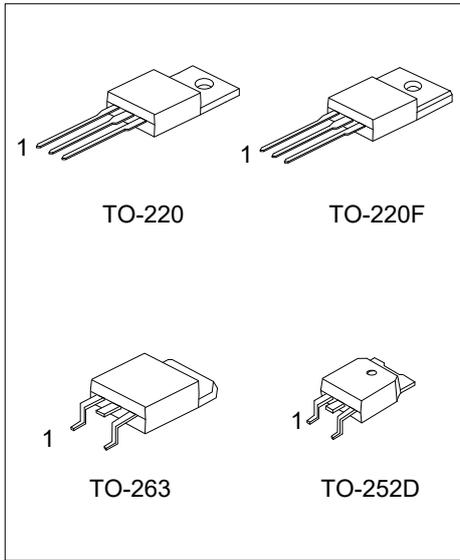
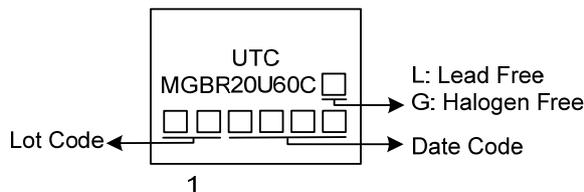
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20U60CL-TA3-T	MGBR20U60CG-TA3-T	TO-220	A	K	A	Tube
MGBR20U60CL-TF3-T	MGBR20U60CG-TF3-T	TO-220F	A	K	A	Tube
MGBR20U60CL-TND-R	MGBR20U60CG-TND-R	TO-252D	A	K	A	Tape Reel
MGBR20U60CL-TQ2-T	MGBR20U60CG-TQ2-T	TO-263	A	K	A	Tube
MGBR20U60CL-TQ2-R	MGBR20U60CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MGBR20U60CG-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, TND: TO-252D, TQ2: TO-263</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
DC Blocking Voltage		V _{RM}	60	V
Working Peak Reverse Voltage		V _{RWM}	60	V
Peak Repetitive Reverse Voltage		V _{RRM}	60	V
Average Rectified Forward Current	Per Leg	I _O	10	A
	Total		20	A
Operating Junction Temperature		T _J	-40 ~ +150	°C
Storage Temperature		T _{STG}	-40 ~ +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	TO-220/TO-220F TO-263	θ _{JA}	62.5	°C/W
	TO-252D		110	°C/W
	TO-220/TO-263		2	°C/W
Junction to Case	TO-220F	θ _{JC}	3.31	°C/W
	TO-252D		2.5	°C/W

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

■ ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	I _R =0.60mA	60			V	
Instantaneous Forward Voltage	V _{FM}	I _F =5A, T _J =25°C		0.40		V	
		I _F =5A, T _J =125°C		0.37		V	
		I _F =10A, T _J =25°C			0.49		V
		I _F =10A, T _J =125°C			0.44		V
Instantaneous Reverse Current (Note 1)	I _{RM}	V _{RM} =60V, T _J =25°C			500	μA	
		V _{RM} =60V, T _J =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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