

**MGBR20S60C**

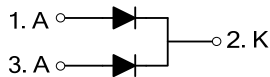
Preliminary

DIODE**DUAL MOS GATED BARRIER
RECTIFIERS****DESCRIPTION**

The UTC **MGBR20S60C** 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

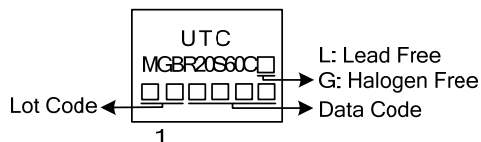
- * Super low forward voltage
- * High switching speed
- * High current capability

SYMBOL**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20S60CL-TA3-T	MGBR20S60CG-TA3-T	TO-220	A	K	A	Tube
MGBR20S60CL-TF3-T	MGBR20S60CG-TF3-T	TO-220F	A	K	A	Tube

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

MGBR20S60CL-TA3-T (1) Packing Type (2) Package Type (3) Green Package	(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F (3) L: Lead Free, G: Halogen Free and Lead Free
---	--

MARKING

■ **ABSOLUTE MAXIMUM RATINGS** ($T_A=25^{\circ}\text{C}$ 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
Peak Forward Surge Current		I_{FSM}	130	A
Operating Junction Temperature		T_J	$-40 \sim +150$	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	$-40 \sim +150$	$^{\circ}\text{C}$

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 CHARACTERISTICS (PER LEG)**

PARAMETER		SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	θ_{JC}	2	$^{\circ}\text{C/W}$
	TO-220F		4	$^{\circ}\text{C/W}$

■ **ELECTRICAL CHARACTERISTICS (PER LEG)** ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.60\text{mA}$	60			V
Instantaneous Forward Voltage	V_{FM}	$I_F=5\text{A}, T_J=25^{\circ}\text{C}$		0.42		V
		$I_F=5\text{A}, T_J=125^{\circ}\text{C}$		0.38		V
		$I_F=10\text{A}, T_J=25^{\circ}\text{C}$			0.54	V
		$I_F=10\text{A}, T_J=125^{\circ}\text{C}$			0.49	V
Leakage Current	I_{RM}	$V_{RM}=60\text{V}, T_J=25^{\circ}\text{C}$			500	μA
		$V_{RM}=60\text{V}, T_J=125^{\circ}\text{C}$			50	mA

Note: Pulse Test: Pulse width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$.

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. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.