



MGBR20L60C

DIODE

DUAL MOS GATED BARRIER RECTIFIERS

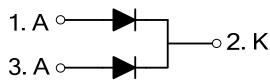
DESCRIPTION

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

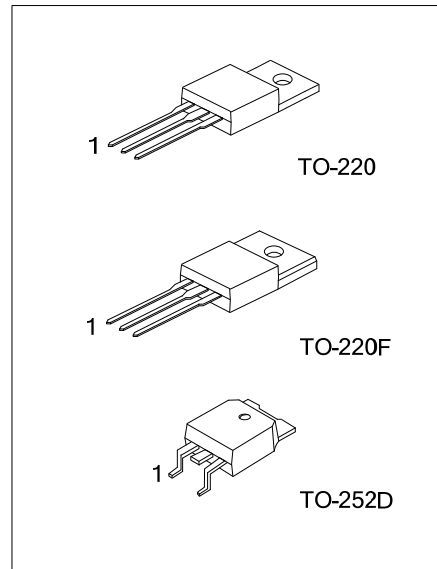
SYMBOL



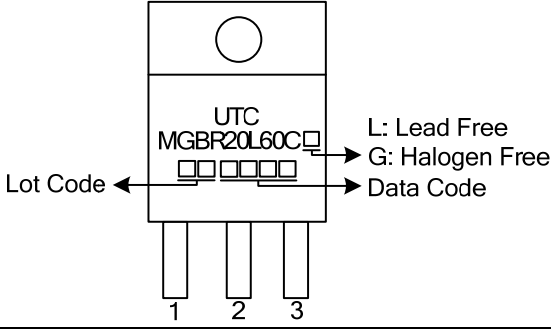
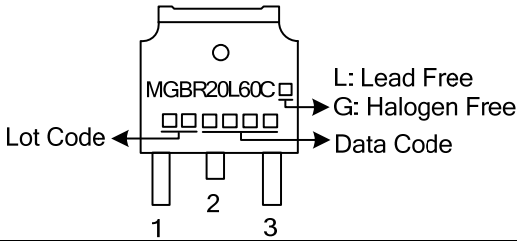
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20L60CL-TA3-T	MGBR20L 60CG-TA3-T	TO-220	A	K	A	Tube
MGBR20L60CL-TF3-T	MGBR20L 60CG-TF3-T	TO-220F	A	K	A	Tube
MGBR20L60CL-TND-T	MGBR20L 60CG-TND-T	TO-252D	A	K	A	Tube
MGBR20L60CL-TND-R	MGBR20L 60CG-TND-R	TO-252D	A	K	A	Tape Reel

<p>MGBR20L60CL-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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MARKING INFORMATION

PACKAGE	MARKING
TO-220/TO-220F	 <p>The diagram shows a TO-220/TO-220F diode package with three leads labeled 1, 2, and 3. The marking on the package includes a circle at the top, the text 'UTC' and 'MGBR20L60C', a four-digit lot code, and a four-digit data code. Arrows point from the text 'L: Lead Free' and 'G: Halogen Free' to the right, and from 'Data Code' to the right, and from 'Lot Code' to the left.</p>
TO-252D	 <p>The diagram shows a TO-252D diode package with three leads labeled 1, 2, and 3. The marking on the package includes a circle at the top, the text 'MGBR20L60C', a four-digit lot code, and a four-digit data code. Arrows point from the text 'L: Lead Free' and 'G: Halogen Free' to the right, and from 'Data Code' to the right, and from 'Lot Code' to the left.</p>

■ 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}	150	A
Operating Junction Temperature		T_J	-65~+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-65~+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 DATA

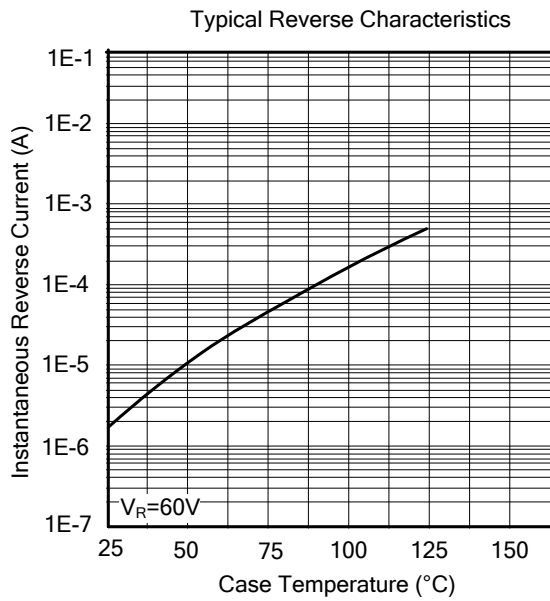
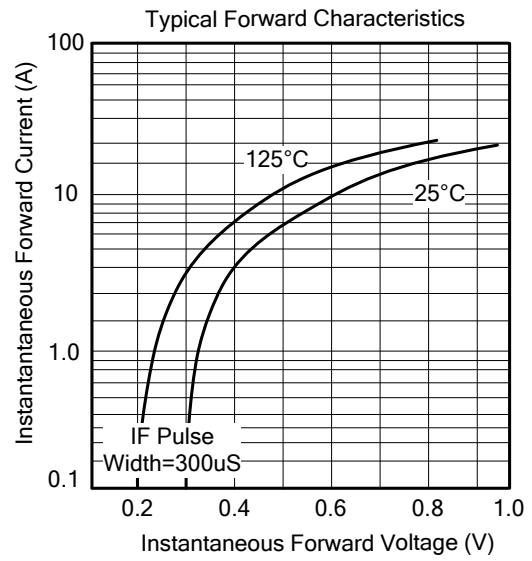
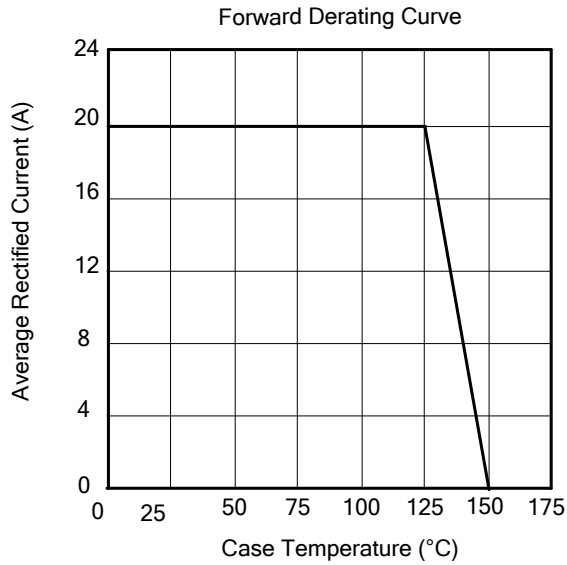
PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220/TO-220F	θ_{JA}	62.5	$^\circ\text{C/W}$
	TO-252D		2.5	
Junction to Case	TO-220F	θ_{JC}	3.31	$^\circ\text{C/W}$
	TO-220/TO-252D		2	

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$ 60				V	
Instantaneous Forward Voltage	V_{FM}	$I_F=5\text{A}$, $T_J=25^\circ\text{C}$		0.46		V	
		$I_F=5\text{A}$, $T_J=125^\circ\text{C}$		0.41		V	
		$I_F=10\text{A}$, $T_J=25^\circ\text{C}$			0.64		V
		$I_F=10\text{A}$, $T_J=125^\circ\text{C}$			0.59		V
Instantaneous Reverse Current (Note 1)	I_{RM}	$V_{RM}=60\text{V}$, $T_J=25^\circ\text{C}$			300	μA	
		$V_{RM}=60\text{V}$, $T_J=125^\circ\text{C}$			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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