



MGBR10L200C

DIODE

DUAL MOS GATED BARRIER RECTIFIER

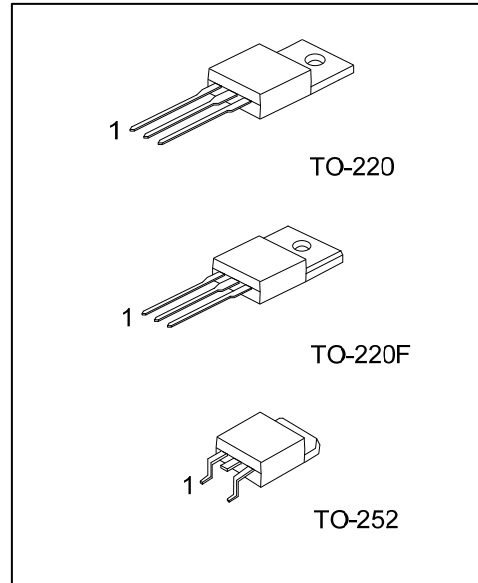
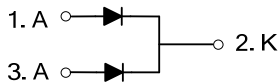
DESCRIPTION

The UTC **MGBR10L200C** is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

FEATURES

- * Low forward voltage drop
- * High switching speed

SYMBOL



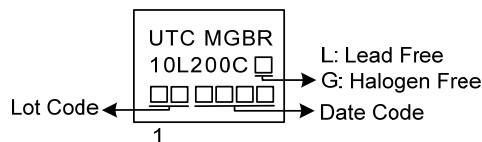
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR10L200CL-TA3-T	MGBR10L200CG-TA3-T	TO-220	A	K	A	Tube
MGBR10L200CL-TF3-T	MGBR10L200CG-TF3-T	TO-220F	A	K	A	Tube
MGBR10L200CL-TN3-R	MGBR10L200CG-TN3-R	TO-252	A	K	A	Tape Reel

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

<p>MGBR10L200CG-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF3: TO-220F, TN3: TO-252</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS (PER LEG) ($T_A=25^\circ\text{C}$ unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

PARAMETER		SYMBOL	RATINGS	UNIT
DC Blocking Voltage		V_{RM}	200	V
Working Peak Reverse Voltage		V_{RWM}	200	V
Peak Repetitive Reverse Voltage		V_{RRM}	200	V
Average Rectified Output Current Per Device	Per Leg	I_o	5	A
	Total		10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I_{FSM}	110	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 CHARACTERISTICS (PER LEG)

PARAMETER		SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	θ_{JC}	2	$^\circ\text{C/W}$
	TO-220F		4	$^\circ\text{C/W}$
	TO-252		2.5 (Note)	$^\circ\text{C/W}$

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

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	200			V
Forward Voltage Drop	V_{FM}	$I_F=1\text{A}, T_J=25^\circ\text{C}$		0.69		V
		$I_F=1\text{A}, T_J=125^\circ\text{C}$		0.54		V
		$I_F=3\text{A}, T_J=25^\circ\text{C}$		0.77		V
		$I_F=3\text{A}, T_J=125^\circ\text{C}$		0.63		V
		$I_F=5\text{A}, T_J=25^\circ\text{C}$		0.82	0.9	V
		$I_F=5\text{A}, T_J=125^\circ\text{C}$		0.69	0.74	V
Leakage Current (Note 1)	I_{RM}	$V_R=200\text{V}, T_J=25^\circ\text{C}$		2	100	μA
		$V_R=200\text{V}, T_J=125^\circ\text{C}$		0.5	25	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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