



## MGBR10L200C

DIODE

### DUAL MOS GATED BARRIER RECTIFIER

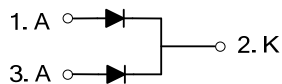
#### DESCRIPTION

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



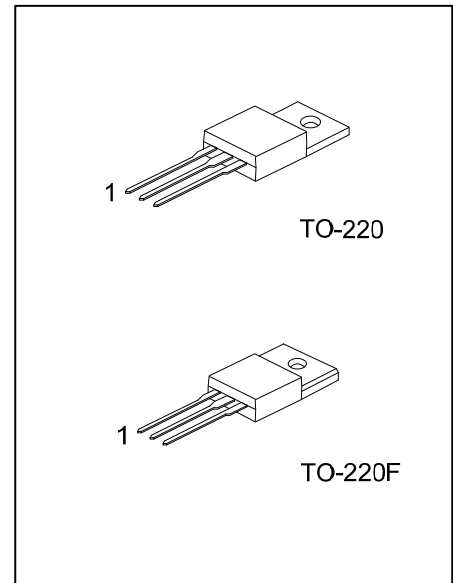
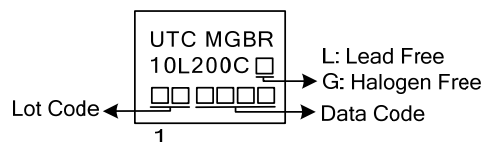
#### ORDERING INFORMATION

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

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

MGBR10L200CG-TA3-T	(1)Packing Type	(1) T: Tube
	(2)Package Type	(2) TA3: TO-220, TF3: TO-220F
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

#### MARKING



## ■ ABSOLUTE MAXIMUM RATINGS (PER LEG) (T<sub>A</sub>=25°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 <sub>RM</sub>	200	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	200	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	200	V
Average Rectified Output Current Per Device	I <sub>O</sub>	5	A
		10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	110	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 CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	2	°C/W
	TO-220F	4	°C/W

## ■ ELECTRICAL CHARACTERISTICS (PER LEG) (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> =0.50mA	200			V
Forward Voltage Drop	V <sub>FM</sub>	I <sub>F</sub> =1A, T <sub>J</sub> =25°C		0.69		V
		I <sub>F</sub> =1A, T <sub>J</sub> =125°C		0.54		V
		I <sub>F</sub> =3A, T <sub>J</sub> =25°C		0.77		V
		I <sub>F</sub> =3A, T <sub>J</sub> =125°C		0.63		V
		I <sub>F</sub> =5A, T <sub>J</sub> =25°C		0.82	0.9	V
		I <sub>F</sub> =5A, T <sub>J</sub> =125°C		0.69	0.74	V
Leakage Current (Note 1)	I <sub>RM</sub>	V <sub>R</sub> =200V, T <sub>J</sub> =25°C		2	100	μA
		V <sub>R</sub> =200V, T <sub>J</sub> =125°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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