



MGBR20L200C

DIODE

DUAL MOS GATED BARRIER RECTIFIER

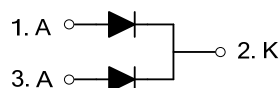
DESCRIPTION

The UTC **MGBR20L200C** 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



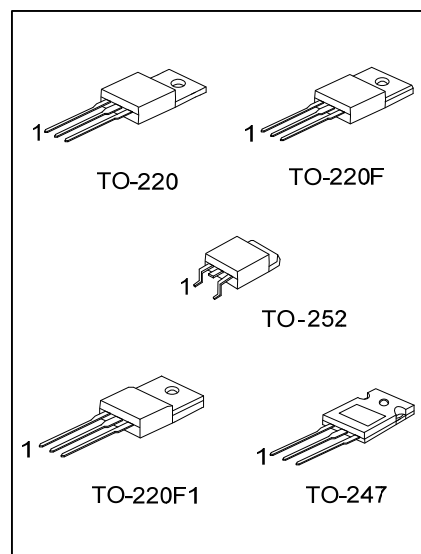
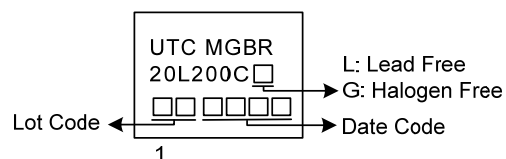
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20L200CL-TA3-T	MGBR20L200CG-TA3-T	TO-220	A	K	A	Tube
MGBR20L200CL-TF3-T	MGBR20L200CG-TF3-T	TO-220F	A	K	A	Tube
MGBR20L200CL-TF1-T	MGBR20L200CG-TF1-T	TO-220F1	A	K	A	Tube
MGBR20L200CL-TN3-R	MGBR20L200CG-TN3-R	TO-252	A	K	A	Tape Reel
MGBR20L200CL-T47-T	MGBR20L200CG-T47-T	TO-247	A	K	A	Tube

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

<p>MGBR20L200CG-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, TF1: TO-220F1</p> <p>TN3: TO-252, T47: TO-247</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)

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 (T _C =140°C)	Per Leg	I _O	10	A
	Total		20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I _{FSM}	180	A
Repetitive Peak Avalanche Power (1μs, 25°C)		P _{ARM}	5000	W
Operating Junction Temperature		T _J	-65 ~ +150	°C
Storage Temperature		T _{STG}	-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	θ _{JC}	2	°C/W
	TO-220F		4	°C/W
	TO-220F1			
	TO-247		1.45	°C/W
	TO-252		2.5 (Note)	°C/W

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

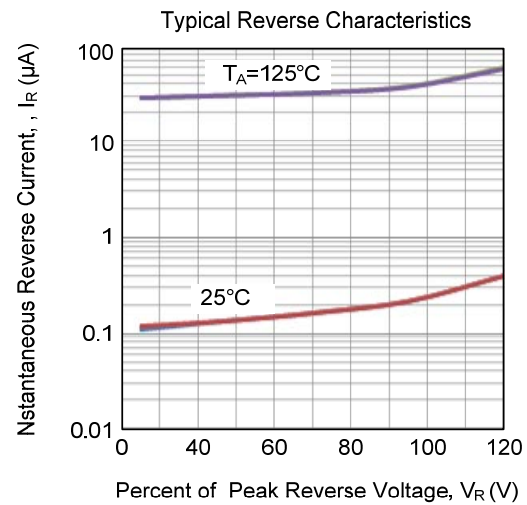
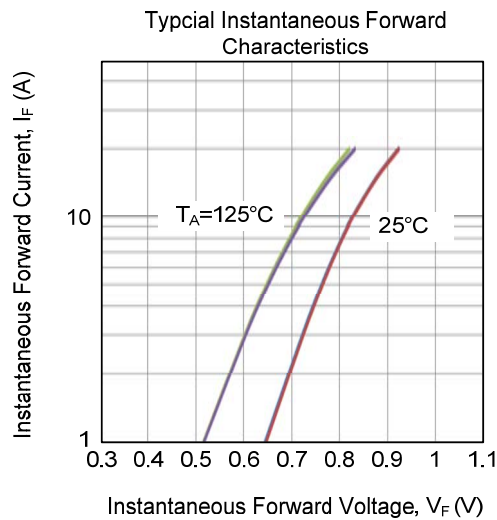
■ ELECTRICAL CHARACTERISTICS(Per Leg) (T_A=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	I _R =0.5mA	200			V
Instantaneous Forward Voltage Drop	V _{FM}	I _F =10A, T _J =25°C			0.86	V
		I _F =10A, T _J =125°C			0.78	V
Leakage Current (Note 1)	I _{RM}	V _R =200V, T _J =25°C			100	μA
		V _R =200V, T _J =125°C			10	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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