

UNISONIC TECHNOLOGIES CO., LTD

MGBR20U100C

Preliminary

DIODE

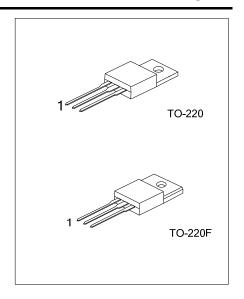
DUAL MOS GATED BARRIER RECTIFIER

■ DESCRIPTION

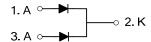
The UTC MGBR20U100C is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

■ FEATURES

- * Ultra low forward voltage drop
- * High switching speed



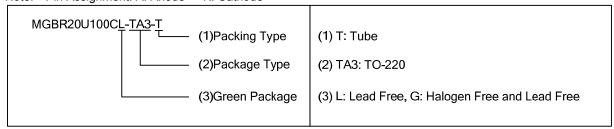
■ SYMBOL



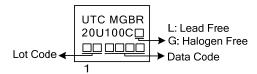
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing	
Lead Free	ee Halogen Free		1	2	3	Facking	
MGBR20U100CL-TA3-T	MGBR20U100CG-TA3-T	TO-220	Α	K	Α	Tube	
MGBR20U100CL-TF3-T	MGBR20U100CG-TF3-T	TO-220F	Α	K	Α	Tube	

Note: Pin Assignment: A: Anode K: Cathode



■ MARKING



<u>www.unisonic.com.tw</u> 1 of 3

■ ABSOLUTE MAXIMUM RATINGS (PER LEG) (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}	100	V	
Working Peak Reverse Voltage	V_{RWM}	100	V	
Peak Repetitive Reverse Voltage		V_{RRM}	100	V
Average Rectified Output Current Per Device	Per Leg	l _o	10	Α
	Total		20	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I _{FSM}	250	Α
Operating Junction Temperature		TJ	-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	
Junction to Ambient		θ_{JA}	62.5	°C/W	
lunation to Coop	TO-220	0	2	°C/\\	
Junction to Case	TO-220F	θ_{JC}	3.31	°C/W	

■ 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 =0.50mA	100			٧
Forward Voltage Drop	I V _{EM}	I _F =10A, T _J =25°C			0.65	٧
		I _F =10A, T _J =125°C			0.60	V
Leakage Current (Note 1)	I DM	V _R =100V, T _J =25°C			200	μΑ
		V _R =100V, T _{.I} =125°C			25	mΑ

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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