UTC UNISONIC TECHNOLOGIES CO., LTD

MGBR30L45C **DIODE**

DUAL MOS GATED BARRIER RECTIFIER

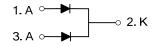
DESCRIPTION

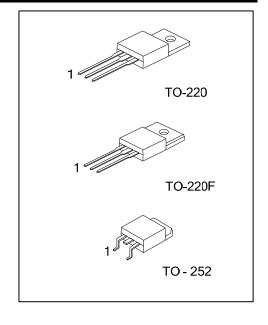
The UTC MGBR30L45C is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

FEATURES

- * Low forward voltage drop
- * High switching speed

SYMBOL

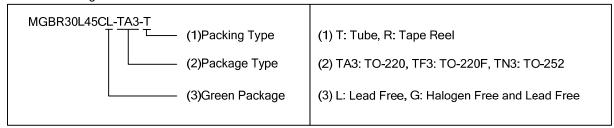




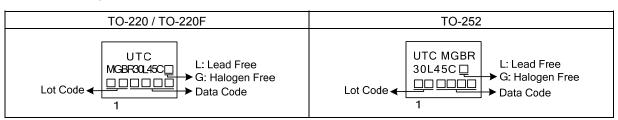
ORDERING

Ordering Number		Dookogo	Pin Assignment			Dooking	
Lead Free	Halogen Free	Package	1	2	3	Packing	
MGBR30L45CL-TA3-T	MGBR30L45CG-TA3-T	TO-220	Α	K	Α	Tube	
MGBR30L45CL-TF3-T	MGBR30L45CG-TF3-T	TO-220F	Α	K	Α	Tube	
MGBR30L45CL-TN3-R	MGBR30L45CG-TN3-R	TO-252	Α	K	Α	Tape Reel	

Pin Assignment: A: Anode K: Common Cathode



MARKING



www.unisonic.com.tw 1 of 3 MGBR30L45C

■ 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}	45	٧
Working Peak Reverse Voltage		V_{RWM}	45	٧
Peak Repetitive Reverse Voltage		V_{RRM}	45	٧
Average Rectified Output Current Per	Per Leg		15	Α
Device	Total	I _O	30	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I _{FSM}	200	Α
Operating Junction Temperature		T_J	-65 ~ +150	Ô
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 DATA

PARAMETER		SYMBOL	RATINGS	UNIT	
Junction to Ambient	TO-220/TO-220F	0	62.5	°C/W	
	TO-252	θ_{JA}	110	°C/W	
Junction to Case	TO-220		2	°C/W	
	TO-220F	θ_{JC}	3.31	°C/W	
	TO-252		2.5	°C/W	

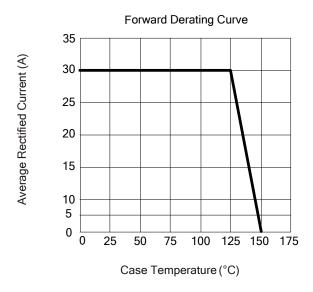
■ **ELECTRICAL CHARACTERISTICS (PER LEG)** (T_A =25°C unless otherwise specified.)

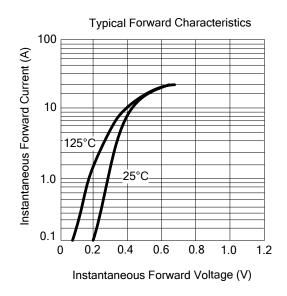
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	I _R =0.50mA	45			V
Forward Voltage Drop	VEM	I _F =15A, T _J =25°C			0.60	V
		I _F =15A, T _J =125°C			0.55	V
Leakage Current (Note 1)	PM	V _R =45V, T _J =25°C			300	μΑ
		V _R =45V, T _J =125°C			100	mΑ

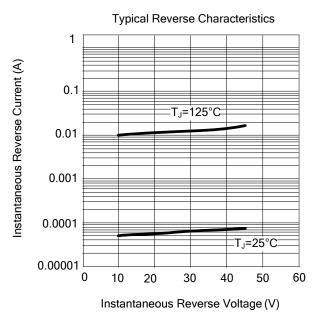
Notes: 1. Short duration pulse test used to minimize self-heating effect.

^{2.} Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS







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