

**MGBR6L45C**

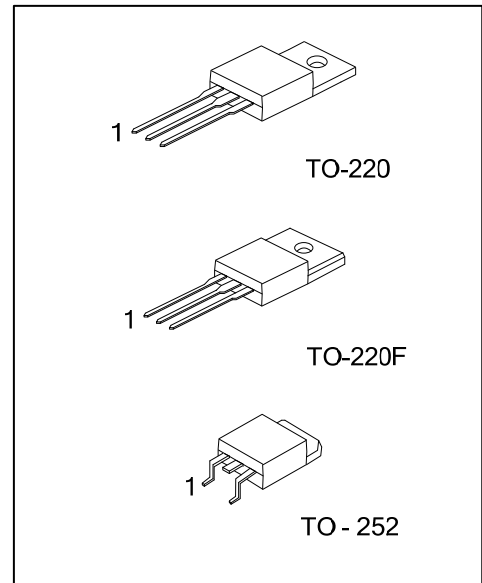
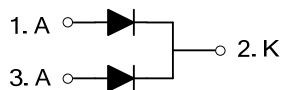
Preliminary

DIODE**DUAL MOS GATED BARRIER
RECTIFIER****DESCRIPTION**

The UTC **MGBR6L45C** 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

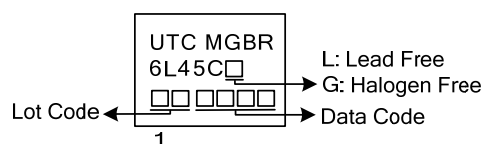
- * Low forward voltage drop
- * High switching speed

SYMBOL**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR6L45CL-TA3-T	MGBR6L45CG-TA3-T	TO-220	A	K	A	Tube
MGBR6L45CL-TF3-T	MGBR6L45CG-TF3-T	TO-220F	A	K	A	Tube
MGBR6L45CL-TN3-R	MGBR6L45CG-TN3-R	TO-252	A	K	A	Tape Reel

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

MGBR6L45CL-TA3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) TA3: TO-220, TF3: TO-220F, TN3: TO-252
	(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

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}	45	V
Working Peak Reverse Voltage		V_{RWM}	45	V
Peak Repetitive Reverse Voltage		V_{RRM}	45	V
Average Rectified Forward Current (Rated VR-20KHz Square Wave) – 50% duty cycle	Per Leg	I_O	3	A
	Total		6	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I_{FSM}	80	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
Junction to Ambient	TO-220/TO-220F	θ_{JA}	62.5	$^{\circ}\text{C/W}$
	TO-252		110	
Junction to Case	TO-220	θ_{JC}	2	$^{\circ}\text{C/W}$
	TO-220F		3.31	
	TO-252		2.5	

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	45			V
Forward Voltage Drop	V_{FM}	$I_F=3\text{A}$, $T_J=25^{\circ}\text{C}$			0.67	V
		$I_F=3\text{A}$, $T_J=125^{\circ}\text{C}$			0.62	V
Leakage Current	I_{RM}	$V_R=45\text{V}$, $T_J=25^{\circ}\text{C}$			100	μA
		$V_R=45\text{V}$, $T_J=125^{\circ}\text{C}$			15	mA

Note: Pulse Test: Pulse width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$.

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