



## MGBR30L150C

Preliminary

DIODE

### DUAL MOS GATED BARRIER RECTIFIER

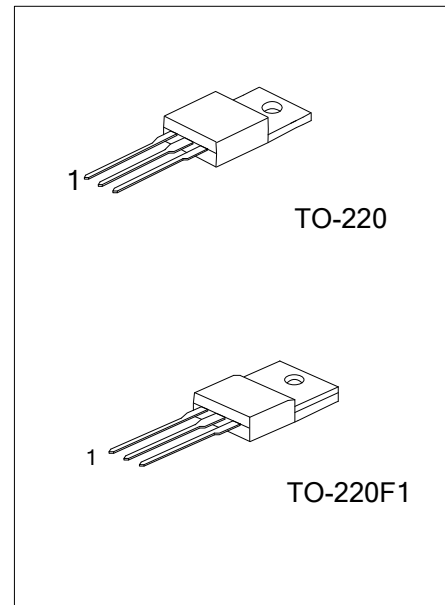
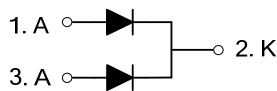
#### DESCRIPTION

The UTC **MGBR30L150C** 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



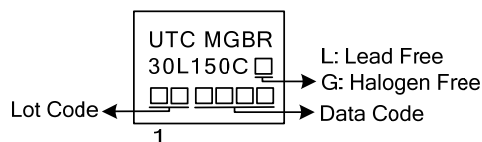
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR30L150CL-TA3-T	MGBR30L150CG-TA3-T	TO-220	A	K	A	Tube
MGBR30L150CL-TF1-T	MGBR30L150CG-TF1-T	TO-220F1	A	K	A	Tube

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

<p>MGBR30L150CL-TA3-R</p>	<p>(1) R: Tape Reel (2) TA3: TO-220, TF1: TO-220F1 (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS( $T_A=25^{\circ}\text{C}$ , 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		$V_{RM}$	150	V
Working Peak Reverse Voltage		$V_{RWM}$	150	V
Peak Repetitive Reverse Voltage		$V_{RRM}$	150	V
Average Rectified Output Current ( $T_C=140^{\circ}\text{C}$ )	Per Leg	$I_o$	15	A
	Total		30	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		$I_{FSM}$	200	A
Repetitive Peak Avalanche Power (1 $\mu\text{s}$ , $25^{\circ}\text{C}$ )		$P_{ARM}$	5000	W
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 DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		$\theta_{JA}$	62.5	$^{\circ}\text{C}/\text{W}$
Junction to Case	TO-220	$\theta_{JC}$	2	$^{\circ}\text{C}/\text{W}$
	TO-220F1		3.31	

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.5\text{mA}$	150			V
		$I_F=15\text{A}$ , $T_J=25^{\circ}\text{C}$			0.90	V
		$I_F=15\text{A}$ , $T_J=125^{\circ}\text{C}$			0.85	V
Leakage Current (Note 1)	$I_{RM}$	$V_R=150\text{V}$ , $T_J=25^{\circ}\text{C}$			100	$\mu\text{A}$
		$V_R=150\text{V}$ , $T_J=125^{\circ}\text{C}$			10	$\text{mA}$

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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