



MGBR30L150C

Preliminary

DIODE

DUAL MOS GATED BARRIER RECTIFIER

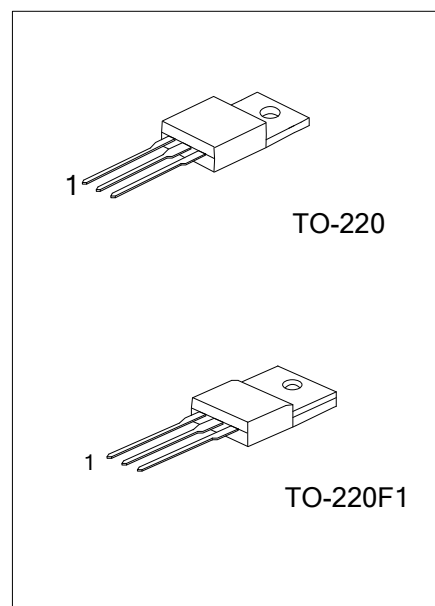
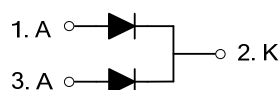
DESCRIPTION

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



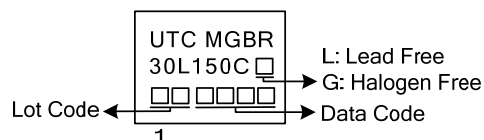
ORDERING INFORMATION

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

MGBR30L150CL-TA3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) TA3: TO-220, TF1: TO-220F1
	(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

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 μs , 25°C)		P_{ARM}	5000	W
Operating Junction Temperature		T_J	$-65\sim+150$	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	$-65\sim+150$	$^{\circ}\text{C}$

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		θ_{JA}	62.5	$^{\circ}\text{C}/\text{W}$
Junction to Case	TO-220	θ_{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	μA
		$V_R=150\text{V}$, $T_J=125^{\circ}\text{C}$			10	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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