

**MGBR30V120**

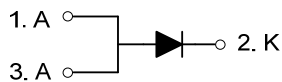
Preliminary

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

The UTC **MGBR30V120** is a mos gated barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

FEATURES

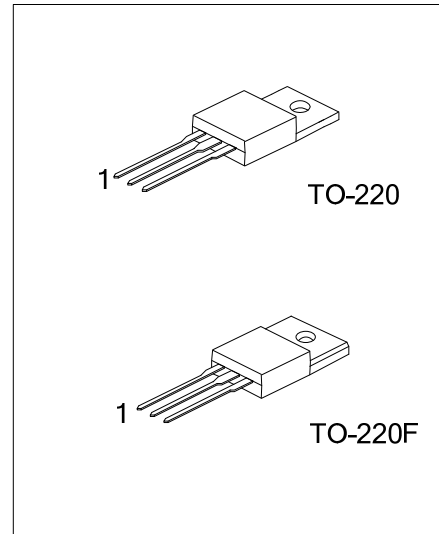
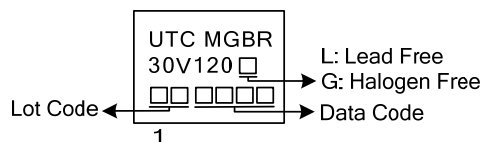
- * Very low forward voltage drop
- * High switching speed

SYMBOL**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR30V120L-TA3-T	MGBR30V120G-TA3-T	TO-220	A	K	A	Tube
MGBR30V120L-TF3-T	MGBR30V120G-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

MGBR30V120L-TA3-T (1) Packing Type (2) Package Type (3) Green Package	(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TN3: TO-252 (3) L: Lead Free, G: Halogen Free and Lead Free
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MARKING

■ ABSOLUTE MAXIMUM RATINGS (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}	120	V
Working Peak Reverse Voltage	V _{RWM}	120	V
Peak Repetitive Reverse Voltage	V _{RRM}	120	V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% Duty Cycle	I _O	30	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	300	A
Operating Junction Temperature	T _J	-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
Typical Thermal Resistance	TO-220	2	°C/W
	TO-220F	4	

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	V _{(BR)R}	I _R =0.50mA	120			V
Forward Voltage Drop	V _{FM}	I _F =30A, T _J =25°C			0.83	V
		I _F =30A, T _J =125°C			0.68	V
Leakage Current	I _{RM}	V _R =120V, T _J =25°C			150	μA
		V _R =120V, T _J =125°C			20	mA

Note: Pulse Test: Pulse width ≤ 300μs, Duty cycle ≤ 2%.

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