



MGBR10L120

Preliminary

DIODE

DUAL MOS GATED BARRIER RECTIFIER

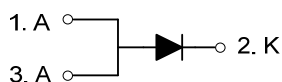
DESCRIPTION

The UTC **MGBR10L120** 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



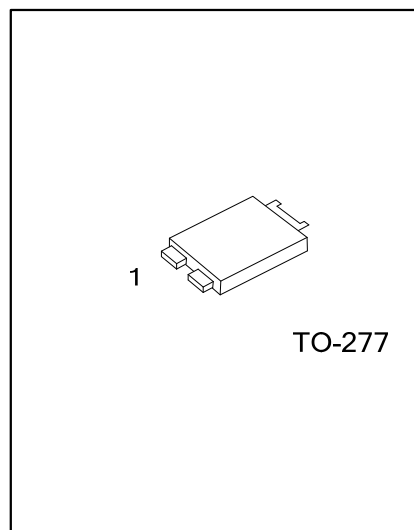
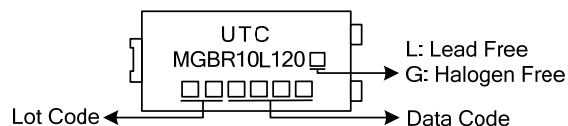
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR10L120L-T27-R	MGBR10L120G-T27-R	TO-277	A	K	A	Tape Reel

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

MGBR10L120L-T27-R	(1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) T27: TO-227 (3) L: Lead Free, G: Halogen Free and Lead Free
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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}	120	V
Working Peak Reverse Voltage	V_{RWM}	120	V
Peak Repetitive Reverse Voltage	V_{RRM}	120	V
Average Rectified Output Current	I_O	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	160	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

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	73	$^\circ\text{C/W}$
Junction to Case	θ_{JC}	13	$^\circ\text{C/W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	120			V
Forward Voltage Drop	V_{FM}	$I_F=10\text{A}, T_J=25^\circ\text{C}$			0.82	V
		$I_F=10\text{A}, T_J=125^\circ\text{C}$			0.70	V
Leakage Current (Note 1)	I_{RM}	$V_R=120\text{V}, T_J=25^\circ\text{C}$			400	μA
		$V_R=120\text{V}, T_J=125^\circ\text{C}$			30	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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