



MGBR10L40C

DIODE

DUAL MOS GATED BARRIER RECTIFIER

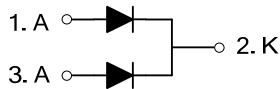
DESCRIPTION

The UTC **MGBR10L40C** 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	
MGBR10L40CL-TA3-T	MGBR10L40CG-TA3-T	TO-220	A	K	A	Tube
MGBR10L40CL-TF3-T	MGBR10L40CG-TF3-T	TO-220F	A	K	A	Tube
MGBR10L40CL-TQ2-T	MGBR10L40CG-TQ2-T	TO-263	A	K	A	Tube
MGBR10L40CL-TQ2-R	MGBR10L40CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

MGBR10L40CL-TA3-T (1) Packing Type (2) Package Type (3) Green Package	(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TQ2: TO-263 (3) L: Lead Free, G: Halogen Free and Lead Free
---	---

MARKING

TO-220 / TO-220F	TO-263
UTC MGBR10L40C L: Lead Free G: Halogen Free Data Code Lot Code 1	UTC MGBR 10L40C L: Lead Free G: Halogen Free Data Code Lot Code 1

■ ABSOLUTE MAXIMUM RATINGS (PER LEG) (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}	40	V
Working Peak Reverse Voltage		V _{RWM}	40	V
Peak Repetitive Reverse Voltage		V _{RRM}	40	V
Average Rectified Forward Current (Rated VR-20KHz Square Wave) – 50% duty cycle	Per Leg	I _O	5	A
	Total		10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I _{FSM}	120	A
Peak Repetitive Reverse Surge Current (2μS-1kHz)		I _{RRM}	2	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 DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		θ _{JA}	62.5	°C/W
Junction to Case	TO-220/TO-263	θ _{JC}	2	°C/W
	TO-220F		4	

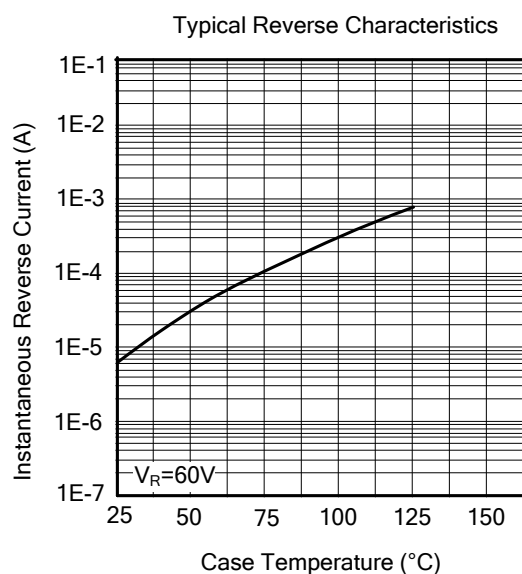
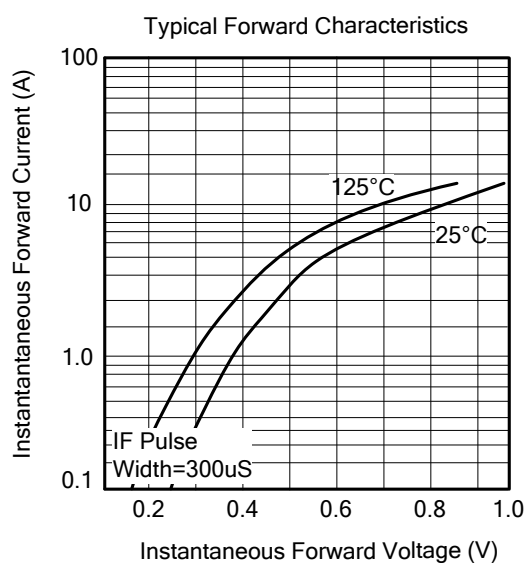
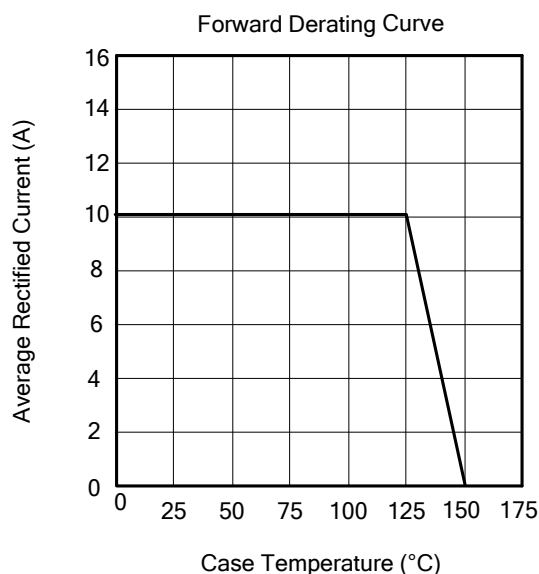
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	I _R =0.50mA	40			V
Forward Voltage Drop	V _{FM}	I _F =5A, T _J =25°C			0.55	V
		I _F =5A, T _J =125°C			0.52	V
Leakage Current (Note 1)	I _{RM}	V _R =40V, T _J =25°C			500	μA
		V _R =40V, T _J =125°C			50	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.