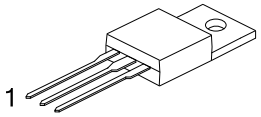
MGBR20L40C **Preliminary** ***DIODE***

DUAL MOS GATED BARRIER RECTIFIERS



TO-220

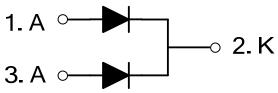
■ DESCRIPTION

The UTC **MGBR20L40C** is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with high current capability, low forward voltage and high switching speed, etc.

■ FEATURES

* Low forward voltage
* High switching speed
* High current capability

■ SYMBOL



■ ORDERING INFORMATION

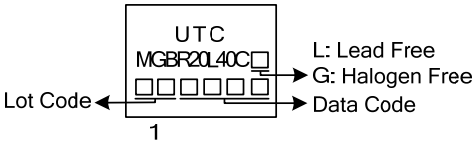
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20L40CL-TA3-T	MGBR20L40CG-TA3-T	TO-220	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

MGBR20L40CL-TA3-T

(1)Packing Type	(1) T: Tube
(2)Package Type	(2) TA3: TO-220
(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

■ 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}	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	10	A
	Total		20	A
Peak Forward Surge Current - 1/2 60Hz		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 CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	62.5	°C/W
Junction to Case	θ_{JC}	2	°C/W

■ ELECTRICAL CHARACTERISTICS-(PER LEG) (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
Instantaneous Forward Voltage	V_{FM}	I_F=20A, T_J=25°C			0.55	V
		I_F=20A, T_J=125°C			0.53	V
Instantaneous Reverse Current (Note 1)	I_{RM}	V_R=40V, T_J=25°C			500	μA
		V_R=40V, T_J=125°C			100	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.
2. Thermal resistance junction to case mounted on heatsink.