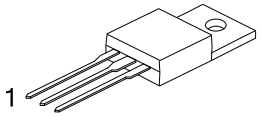
MGBR20U50C

Preliminary ***DIODE***

DUAL MOS GATED BARRIER RECTIFIER



TO-220

■ DESCRIPTION

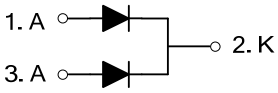
The UTC **MGBR20U50C** is a dual mos gated barrier rectifiers, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

The UTC **MGBR20U50C** suitable for supply applications.

■ FEATURES

* Ultra low forward voltage drop
* High switching speed

■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR20U50CL-TA3-T	MGBR20U50CG-TA3-T	TO-220	A	K	A	Tube

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

MGBR20U50CL-TA3-T (1)Packing Type (2)Package Type (3)Lead Free	(1) T: Tube (2) TA3: TO-220 (3) L: Lead Free, G: Halogen Free

■ 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}	50	V
Working Peak Reverse Voltage		V_{RWM}	50	V
Peak Repetitive Reverse Voltage		V_{RRM}	50	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}	250	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)		I_{RRM}	2	A
Maximum Rate of Voltage Change (at Rated V_R)		dv/dt	10000	V/μS
Operating Junction Temperature		T_J	-65~+150	°C
Storage Junction 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

PARAMETER	SYMBOL	RATINGS	UNIT
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	50			V
Forward Voltage	V_{FM}	I_F=10A, T_J=25°C			0.45	V
		I_F=10A, T_J=125°C			0.40	V
Reverse Current (Note 1)	I_{RM}	V_R=50V, T_J=25°C			500	μA
		V_R=50V, 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.