

**MGBR2U40**

Preliminary

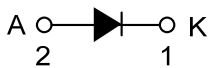
DIODE**MOS GATED BARRIER
RECTIFIER****■ DESCRIPTION**

The UTC **MGBR2U40** is a surface mount mos gated barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed etc.

The UTC **MGBR2U40** suitable for supply applications.

■ FEATURES

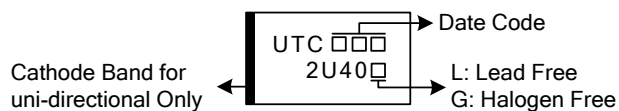
- * Ultra low forward voltage drop
- * High switching speed

■ SYMBOL**■ ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MGBR2U40L-SMB-R	MGBR2U40G-SMB-R	SMB	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) SMB: SMB
	(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	I _O	2	A
Peak Forward Surge Current - 1/2 60hz	I _{FSM}	50	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 DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ _{JA}	90	°C/W

■ 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 =0.5mA	40			V
Forward Voltage	V _{FM}	I _F =2A, T _J =25°C			0.43	V
		I _F =2A, T _J =125°C			0.39	V
Reverse 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.

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