



MGBR40L250

Preliminary

DIODE

MOS GATED BARRIER RECTIFIER

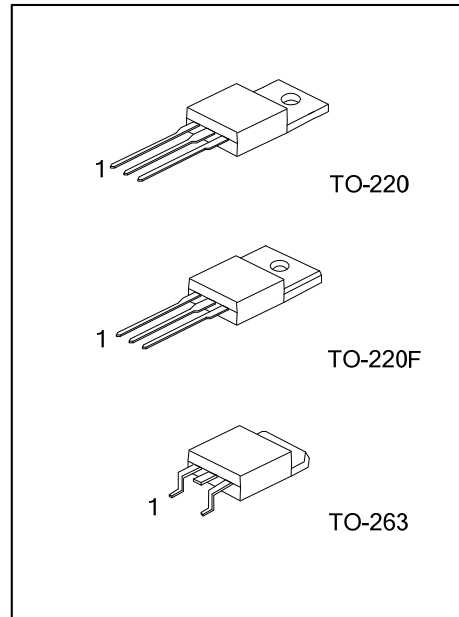
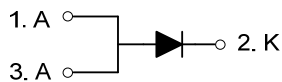
DESCRIPTION

The UTC **MGBR40L250** 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.

FEATURES

- * Low forward voltage drop
- * High switching speed

SYMBOL



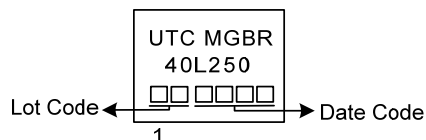
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MGBR40L250L-TA3-T	MGBR40L250G-TA3-T	TO-220	A	K	A	Tube
MGBR40L250L-TF3-R	MGBR40L250G-TF3-R	TO-220F	A	K	A	Tape Reel
MGBR40L250L-TQ2-T	MGBR40L250G-TQ2-T	TO-263	A	K	A	Tube
MGBR40L250L-TQ2-R	MGBR40L250G-TQ2-R	TO-263	A	K	A	Tape Reel

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

<p>MGBR40L250G-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF3: TO-220F, TQ2: TO-263</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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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}	250	V
Working Peak Reverse Voltage	V _{RWM}	250	V
Repetitive Peak Reverse Voltage	V _{RRM}	250	V
Average Rectified Output Current	I _O	40	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	150	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
Typical Thermal Resistance	TO-220	2	°C/W
	TO-220F	4	°C/W
	TO-263	3	°C/W

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	V _{(BR)R}	I _R =0.5mA	250			V
Instantaneous Forward Voltage	V _{FM}	I _F =40A, T _J =25°C			0.97	V
		I _F =40A, T _J =125°C			0.86	V
Leakage Current	I _{RM}	V _R =250V, T _J =25°C			250	μA
		V _R =250V, T _J =125°C			30	mA

Note: Pulse Test: Pulse width ≤ 300μs, Duty cycle ≤ 2%.

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