



UMUR860C

DIODE

SWITCHMODE POWER RECTIFIERS

DESCRIPTION

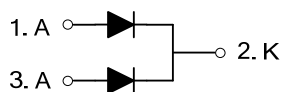
The UTC **UMUR860C** is a switchmode power rectifier, it uses UTC's advanced technology to provide customers with high voltage capability, low forward drop and low leakage current, etc.

The UTC **UMUR860C** is suitable for use in switching power supplies, inverters and as free wheeling diodes.

FEATURES

- * Ultrafast and nanosecond recovery time
- * High voltage capability
- * Low forward drop
- * Low leakage current

SYMBOL



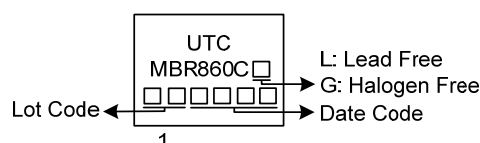
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UMUR860CL-TA3-T	UMUR860CG-TA3-T	TO-220	A	K	A	Tube
UMUR860CL-TF1-T	UMUR860CG-TF1-T	TO-220F1	A	K	A	Tube
UMUR860CL-TF3-T	UMUR860CG-TF3-T	TO-220F	A	K	A	Tube
UMUR860CL-TN3-R	UMUR860CG-TN3-R	TO-252	A	K	A	Tape Reel
UMUR860CL-TQ2-T	UMUR860CG-TQ2-T	TO-263	A	K	A	Tube
UMUR860CL-TQ2-R	UMUR860CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>UMUR860CG-TA3-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF1: TO-220F1, TF3: TO-220F</p> <p>TN3: TO-252, TQ2: TO-263</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Working Peak Reverse Voltage		V_{RWM}	600	V
DC Blocking Voltage		V_R	600	V
Average Forward Current	$T_C=100^{\circ}\text{C}$	I_O	4	A
	Total Device		8	A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions, halfwave, single phase, 60 Hz)		I_{FSM}	48	A
Operating Junction Temperature		T_J	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

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 Case	TO-220/TO-263	θ_{JC}	2	$^{\circ}\text{C/W}$
	TO-220F/TO-220F1		4	$^{\circ}\text{C/W}$
	TO-252		3	$^{\circ}\text{C/W}$

■ ELECTRICAL CHARACTERISTICS

Single phase, half wave, 60Hz, resistive or inductive load.

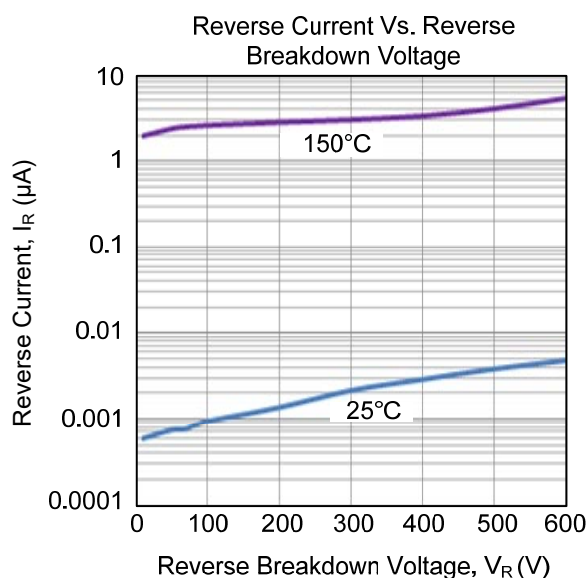
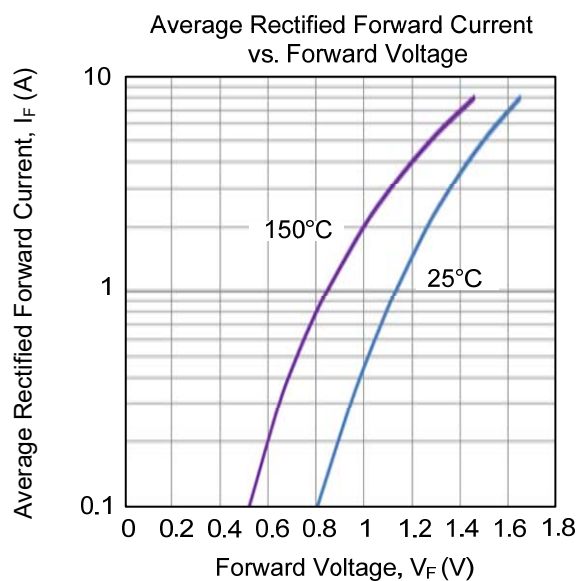
For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=1\text{mA}$	600			V
Forward Voltage Drop	V_{FM}	$I_F=4.0\text{A}$, $T_C=25^{\circ}\text{C}$			1.8	V
		$I_F=4.0\text{A}$, $T_C=150^{\circ}\text{C}$			1.6	V
Leakage Current (Note 1)	I_{RM}	Rated DC voltage, $T_J=150^{\circ}\text{C}$			250	μA
		Rated DC voltage, $T_J=25^{\circ}\text{C}$			5.0	μA
Maximum Reverse Recovery Time	t_{rr}	$I_F=1.0\text{A}$, $di/dt=50\text{A}/\mu\text{s}$			50	ns

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

2. Thermal resistance junction to case mounted on heatsink.

TYPICAL CHARACTERISTICS



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