



## UMUR2040C

DIODE

### SWITCHMODE POWER RECTIFIERS

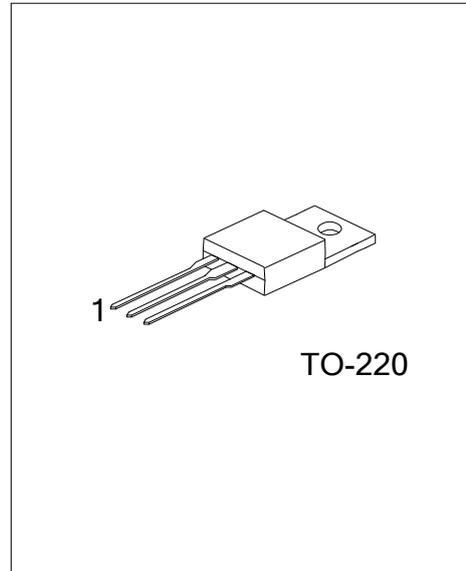
#### DESCRIPTION

The UTC **UMUR2040C** 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.

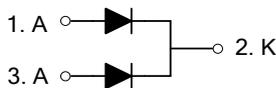
The UTC **UMUR2040C** is suitable for use in switching power supplies, inverters and as free wheeling diodes.

#### FEATURES

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



#### SYMBOL



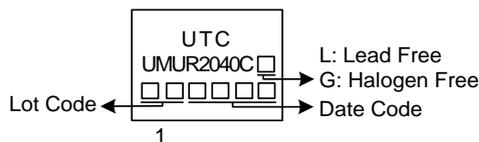
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UMUR2040CL-TA3-T	UMUR2040CG-TA3-T	TO-220	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>UMUR2040CG-TA3-T</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) T: Tube (2) TA3: TO-220 (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	$V_{RRM}$	400	V	
Working Peak Reverse Voltage	$V_{RWM}$	400	V	
DC Blocking Voltage	$V_R$	400	V	
Average Forward Current	$I_o$	$T_C=100^{\circ}C$	10	A
		Total Device	20	A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions, halfwave, single phase, 60 Hz)	$I_{FSM}$	105	A	
Operating Junction Temperature	$T_J$	-65 ~ +150	$^{\circ}C$	
Storage Temperature	$T_{STG}$	-65 ~ +150	$^{\circ}C$	

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	$\theta_{JC}$	2	$^{\circ}C/W$

## ■ ELECTRICAL CHARACTERISTICS

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

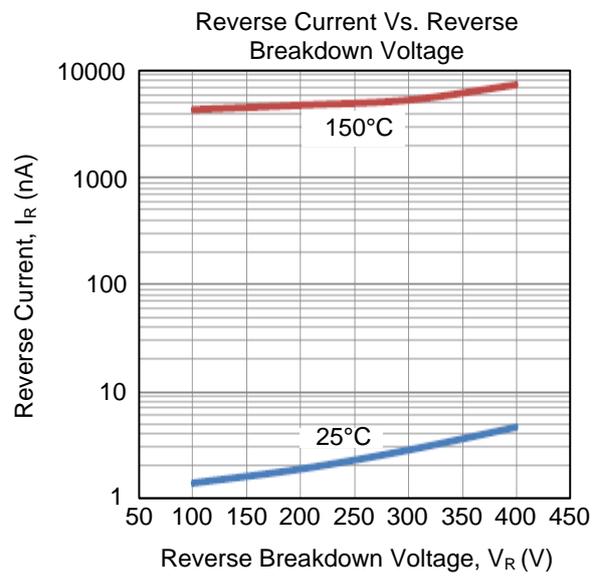
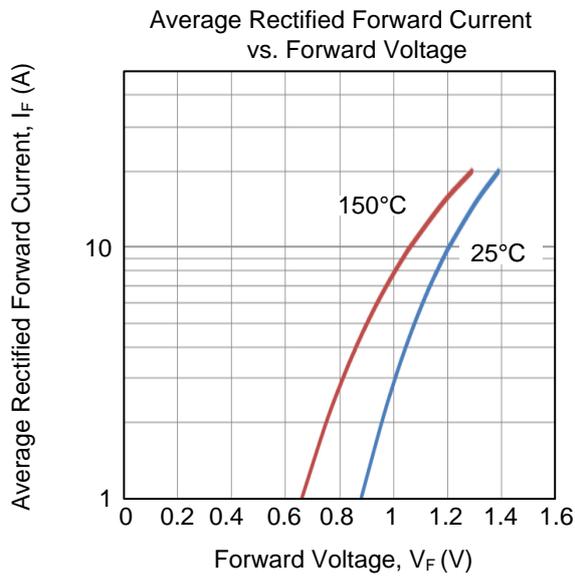
For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=1mA$	400			V
Forward Voltage Drop	$V_{FM}$	$I_F=10A, T_C=25^{\circ}C$			1.5	V
		$I_F=10A, T_C=150^{\circ}C$			1.4	V
Leakage Current (Note 1)	$I_{RM}$	Rated DC voltage, $T_J=150^{\circ}C$			10	$\mu A$
		Rated DC voltage, $T_J=25^{\circ}C$			250	$\mu A$
Maximum Reverse Recovery Time	$t_{rr}$	$I_F=1.0A, di/dt=50A/\mu s$		46	60	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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