



## UUR1660C

DIODE

### SWITCHMODE ULTRAFAST POWER RECTIFIER

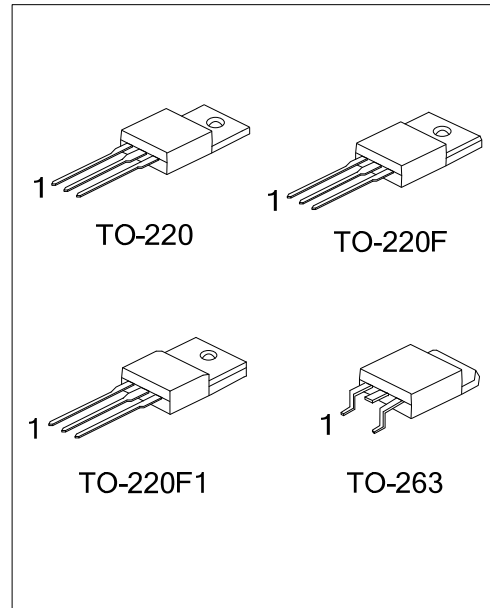
#### DESCRIPTION

The UTC **UUR1660C** is a switchmode ultrafast power rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high surge capacity, etc.

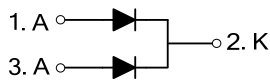
The UTC **UUR1660C** is suitable for instrumentation and power management, etc

#### FEATURES

- \* Ultra-fast switching
- \* Low forward voltage drop
- \* High efficiency and low power loss
- \* High surge capacity



#### SYMBOL



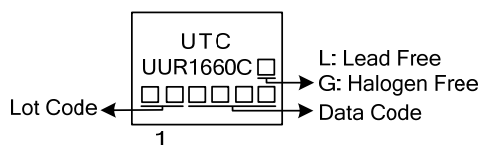
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UUR1660CL-TA3-T	UUR1660CG-TA3-T	TO-220	A	K	A	Tube
UUR1660CL-TF3-T	UUR1660CG-TF3-T	TO-220F	A	K	A	Tube
UUR1660CL-TF1-T	UUR1660CG-TF1-T	TO-220F1	A	K	A	Tube
UUR1660CL-TQ2-T	UUR1660CG-TQ2-T	TO-263	A	K	A	Tube
UUR1660CL-TQ2-R	UUR1660CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: G: Gate D: Drain S: Source

<p>UUR1660CG-TA3-T</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TF1: TO-220F1 TQ2: TO-263 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



## ■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
DC Blocking Voltage		$V_R$	600	V
Working Peak Reverse Voltage		$V_{RWM}$	600	V
Peak Repetitive Reverse Voltage		$V_{RRM}$	600	V
Average Rectified Forward Current Total Device, (Rated $V_R$ ), $T_C=150^\circ\text{C}$	Per Leg	$I_{F(AV)}$	8.0	A
	Total		16	A
Peak Rectified Forward Current (Rated $V_R$ , Square Wave, 20kHz), $T_C=150^\circ\text{C}$		$I_{FM}$	16	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60Hz)		$I_{FSM}$	100	A
Storage Temperature		$T_{STG}$	-65 ~ +150	$^\circ\text{C}$
Operating Junction Temperature		$T_J$	-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 CHARACTERISTICS (PER LEG)

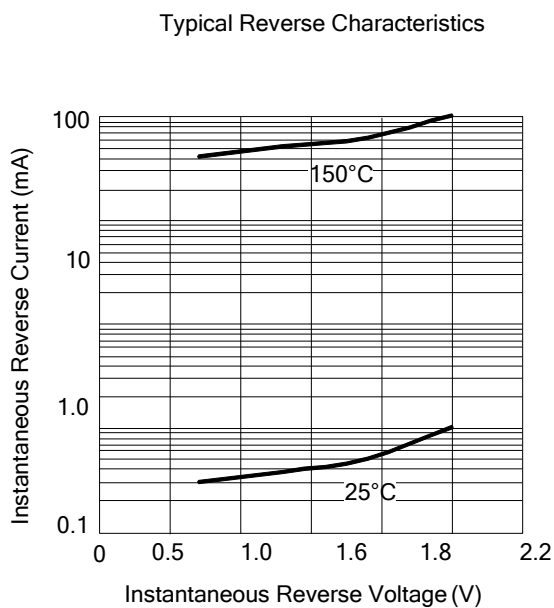
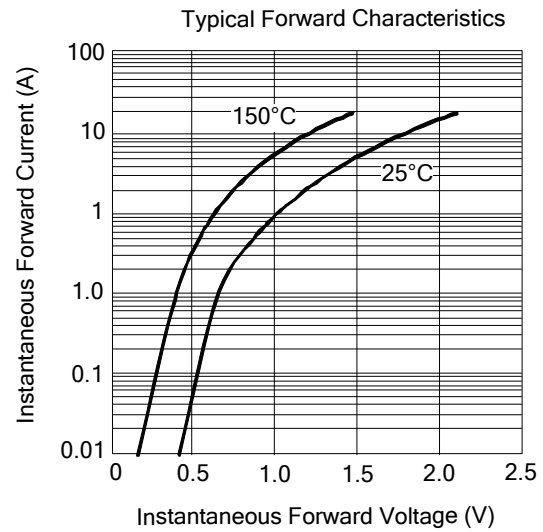
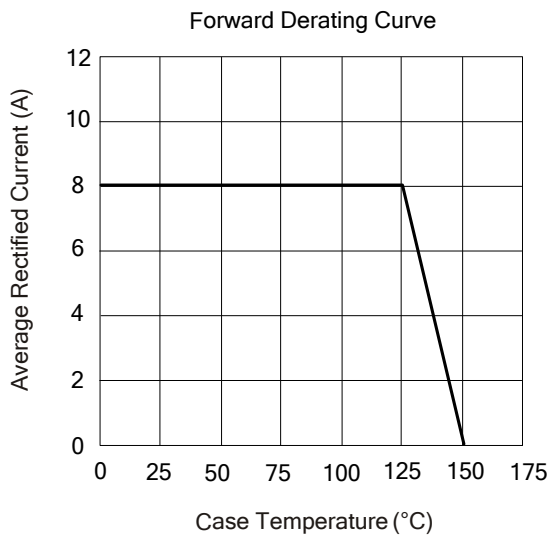
PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Case	TO-220/TO-263	$\theta_{JC}$	2	$^\circ\text{C/W}$
	TO-220F/TO-220F1		3.4	$^\circ\text{C/W}$

## ■ ELECTRICAL CHARACTERISTICS (PER DIODE LEG)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage (Note)	$V_F$	$I_F=8\text{A}$ , $T_C=25^\circ\text{C}$			1.9	V
		$I_F=8\text{A}$ , $T_C=150^\circ\text{C}$			1.3	V
Instantaneous Reverse Current (Note)	$I_R$	Rated dc Voltage, $T_C=25^\circ\text{C}$			10	$\mu\text{A}$
		Rated dc Voltage, $T_C=150^\circ\text{C}$			500	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$	$I_F=1.0\text{A}$ , $di/dt=50\text{A}/\mu\text{s}$			40	ns
		$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{REC}=0.25\text{A}$			35	ns

Note: Pulse Test: Pulse Width=300 $\mu\text{s}$ , Duty Cycle $\leq$ 2.0%

■ TYPICAL CHARACTERISTICS



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