



## UHR1040C

Preliminary

FAST RECOVERY EPITAXIAL DIODE

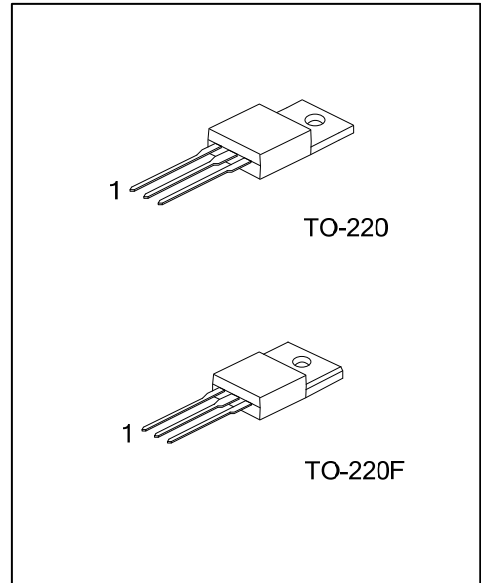
### CATHODE HYPERFASTER SOFT RECOVERY RECTIFIER

#### DESCRIPTION

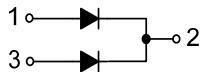
The UTC **UHR1040C** is a hyperfaster soft recovery rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, high current capability and high efficiency, etc.

#### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High surge capacity
- \* Low power loss
- \* High efficiency
- \* hyperfaster recovery times, high voltage



#### SYMBOL



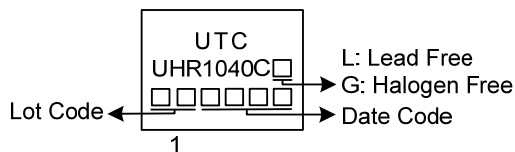
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UHR1040CL-TA3-T	UHR1040CG-TA3-T	TO-220	A	K	A	Tube
UHR1040CL-TF3-T	UHR1040CG-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>UHR1040CG-TA3-T</p>	<p>(1) T: Tube (2) TA3: TO-220, TF3: TO-220F (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



### ■ ABSOLUTE MAXIMUM RATINGS

Ratings at 25°C ambient temperature 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	$V_R$	400	V
Recurrent Peak Reverse Voltage	$V_{RRM}$	400	V
Average Average Forward Current at $T_C=100^\circ\text{C}$	Per Leg	5	A
	Total	10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	40	A
Operating Junction Temperature	$T_J$	-55 ~ +150	°C
Storage Temperature	$T_{STG}$	-55 ~ +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 (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	5	°C/W
	TO-220F	7	°C/W

### ■ ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitance load, derate current by 20%

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage Drop	$V_F$	$I_F=5A$			1.5	V
DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_J=25^\circ\text{C}$			10	μA
		$T_J=125^\circ\text{C}$			200	μA
Reverse Recovery Time (Note 2)	$t_{rr}$			30		ns

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Reverse Recovery Test Conditions:  $I_F=5.0A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

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