



UHR3020C

Advance

FAST RECOVERY EPITAXIAL DIODE

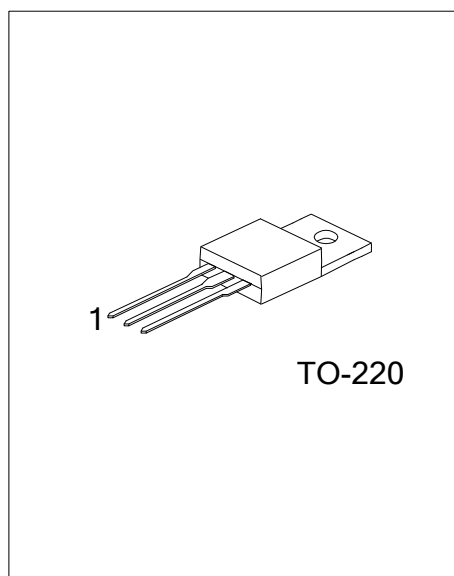
CATHODE HYPERFASTER SOFT RECOVERY RECTIFIER

DESCRIPTION

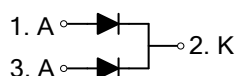
The UTC **UHR3020C** is a hyperfaster soft recovery rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, high current capability and high efficiency, etc.

FEATURES

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



SYMBOL



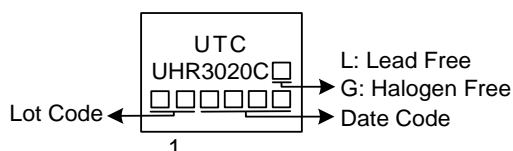
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UHR3020CL-TA3-T	UHR3020CG-TA3-T	TO-220	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

UHR3020CG-TA3-T	(1) Packing Type (2) Package Type (3) Green Package	(1) T: Tube (2) TA3: TO-220 (3) G: Halogen Free and Lead Free, L: Lead Free
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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	200	V
Recurrent Peak Reverse Voltage	V_{RRM}	200	V
Average Average Forward Current at $T_C=159^\circ\text{C}$	Per Leg	15	A
	Total	30	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	160	A
Operating Junction Temperature	T_J	-65 ~ +175	°C
Storage Temperature	T_{STG}	-65 ~ +175	°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	θ_{JC}	1.1	°C/W

Note: Mounting surface, flat, smooth and greased.

■ 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	$I_F=15\text{A}$			1.05	V
		$I_F=15\text{A}, T_J=125^\circ\text{C}$			0.85	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	$V_R=V_{RM}, T_J=25^\circ\text{C}$			10	μA
		$V_R=V_{RM}, T_J=125^\circ\text{C}$			300	μA
Reverse Recovery Time	t_{rr}	$I_F=1\text{A}, V_R=30\text{V}, di/dt=50\text{A}/\mu\text{s}$			52	ns
		$I_F=1\text{A}, V_R=30\text{V}, di/dt=100\text{A}/\mu\text{s}$			40	nC
Reverse recovery charge	Q_{rr}	$I_F=1\text{A}, V_R=30\text{V}, di/dt=50\text{A}/\mu\text{s}$			43	ns
		$I_F=1\text{A}, V_R=30\text{V}, di/dt=100\text{A}/\mu\text{s}$			52	nC
Junction Capacitance	C_J	$V_R=200\text{V}$		57		pF

Note: Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%.

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