



ER1004C

Preliminary

FAST RECOVERY EPITAXIAL DIODE

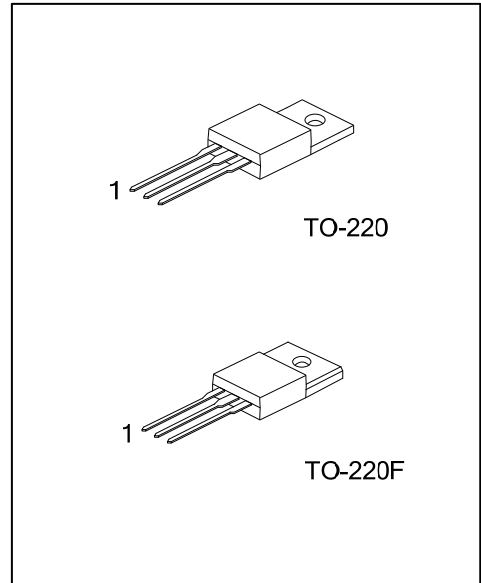
SUPERFAST RECOVERY RECTIFIER

DESCRIPTION

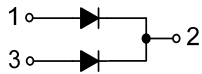
The UTC **ER1004C** is a superfast recovery rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, high current capability and high efficiency, etc.

FEATURES

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



SYMBOL



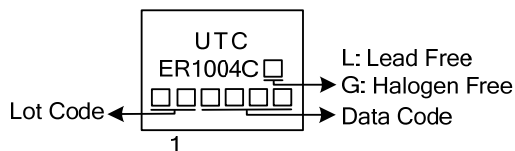
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
ER1004CL-TA3-T	ER1004CG-TA3-T	TO-220	A	K	A	Tube
ER1004CL-TF3-T	ER1004CG-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>ER1004CL-TA3-T</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Green Package</p>	<p>(1) T: Tube</p> <p>(2) TA3: TO-220, TF3: TO-220F</p> <p>(3) L: Lead Free, G: Halogen Free and 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
RMS Voltage	V_{RMS}	280	V
Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Average Average Forward Current at $T_C=100^\circ\text{C}$	$I_{F(AV)}$	10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150	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 CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	62.5	°C/W
Junction to Case	TO-220	3	°C/W
	TO-220F	5	

■ 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	$I_F=5A$			1.3	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^\circ\text{C}$			1	μA
		$T_J=100^\circ\text{C}$			500	μA
Reverse Recovery Time (Note 2)	t_{rr}				50	ns
Junction Capacitance (Note 1)	C_J			62		pF

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

2. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

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