

**ER1004C**

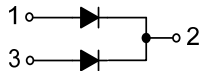
Preliminary

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

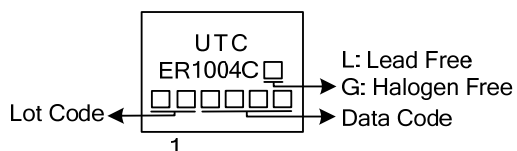
- * Low forward voltage drop
- * High current capability
- * High surge capacity
- * Low power loss
- * High efficiency
- * Super fast recovery times, high voltage

■ 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

ER1004CL-TA3-T	(1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube (2) TA3: TO-220, TF3: TO-220F (3) L: Lead Free, G: Halogen Free and 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	400	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
Typical Thermal Resistance	TO-220	2	°C/W
	TO-220F-2	4	°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	$I_F=10\text{A}$			1.3	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^\circ\text{C}$			10	μA
		$T_J=125^\circ\text{C}$			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: $I_F=5.0\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.

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