



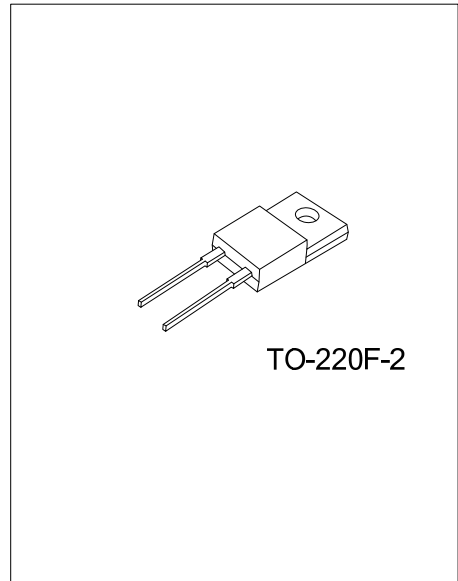
# SUPERFAST RECOVERY RECTIFIER

## DESCRIPTION

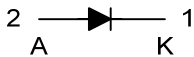
The UTC **ER1004** is a superfast recovery rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, high current capability and high efficiency, etc.

## FEATURES

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



## SYMBOL



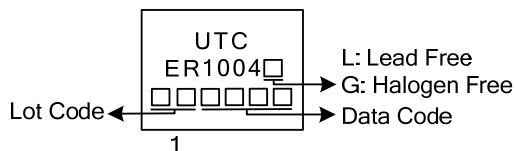
## ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
ER1004L-TF32-R	ER1004G-TF32-R	TO-220F-2	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Common Cathode

<p>ER1004L-TF32-R</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) TF32: TO-220F-2</li> <li>(3) L: Lead Free, G: Halogen Free and Lead Free</li> </ul>
---	--

## 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
Recurrent Peak Reverse Voltage	$V_{RRM}$	400	V
RMS Voltage	$V_{RMS}$	280	V
Average Average Forward Current at $T_C=100^\circ\text{C}$	$I_O$	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	$\theta_{JA}$	62.5	°C/W
Junction to Case	$\theta_{JC}$	5	°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	$\mu\text{A}$
		$T_J=100^\circ\text{C}$			500	$\mu\text{A}$
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:  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.