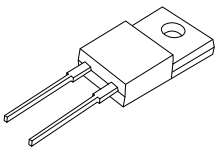
SUPERFAST RECOVERY RECTIFIER



TO-220F-2

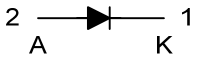
■ DESCRIPTION

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



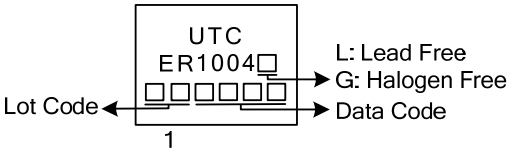
■ ORDERING INFORMATION

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

ER1004L-TF32-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) TF32: TO-220F-2 (3) L: Lead Free, G: Halogen Free and Lead Free

■ 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°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	θ_{JA}	62.5	°C/W
Junction to Case	θ_{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=10A			1.3	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	T_J=25°C			10	μA
		T_J=100°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, Irr=0.25A.