



UFR3060

FAST RECOVERY EPITAXIAL DIODE

SUPERFAST RECOVERY RECTIFIER

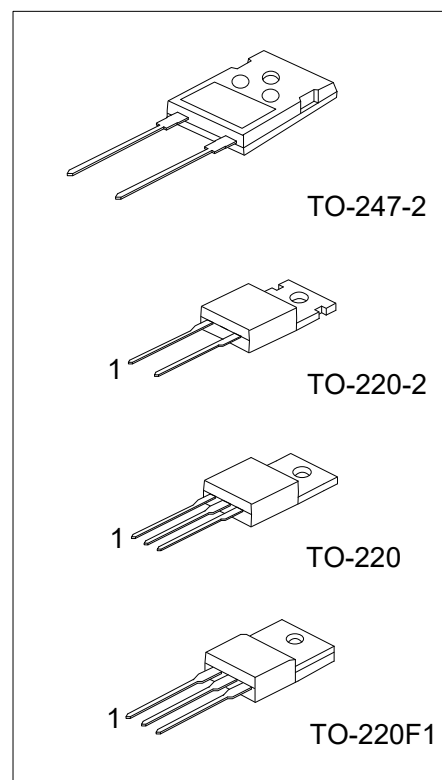
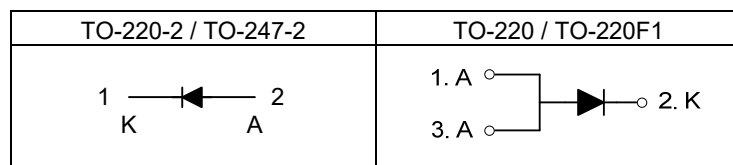
DESCRIPTION

The UTC **UFR3060** is a superfast recovery rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, low leakage, high current capability and high surge capability etc. These characteristics make it ideal for heavy duty applications that demand long term reliability. also fit into auxiliary functions such as snubber, bootstrap, and demagnetization applications.

FEATURES

- * Ultra-Fast Recovery Time for High Efficiency
- * Low Forward Voltage Drop, High Current Capability and Low Power Loss

SYMBOL



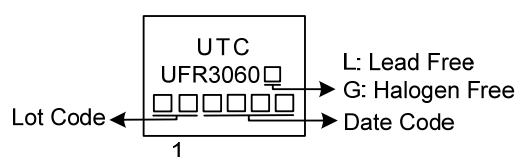
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UFR3060L-TA2-T	UFR3060G-TA2-T	TO-220-2	K	A	-	Tube
UFR3060L-TA3-T	UFR3060G-TA3-T	TO-220	A	K	A	Tube
UFR3060L-TF1-T	UFR3060G-TF1-T	TO-220F1	A	K	A	Tube
UFR3060L-T472-T	UFR3060G-T472-T	TO-247-2	K	A	-	Tube

Note: Pin Assignment: K: Cathode A: Anode

<p>UFR3060G-TA2-T</p>	<p>(1) T: Tube</p> <p>(2) TA2: TO-220-2, TA3: TO-220, TF1: TO-220F1 T472: TO-247-2</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage		V _{RRM}	600	V
Average forward current, $\delta=0.5\%$	T _C =130°C	I _{F(AV)}	30	A
Surge non repetitive forward current	t _p =10ms Sinusoidal	I _{FSM}	200	A
Operating Junction Temperature		T _J	+150	°C
Storage Temperature Range		T _{STG}	-65 ~ +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 DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Case	TO-220-2/TO-220	θ_{JC}	1.2	°C/W
	TO-220F1		3.91	°C/W
	TO-247-2		0.8	°C/W

■ ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz

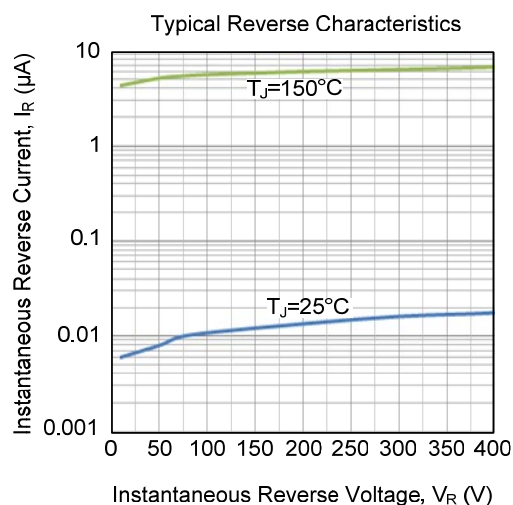
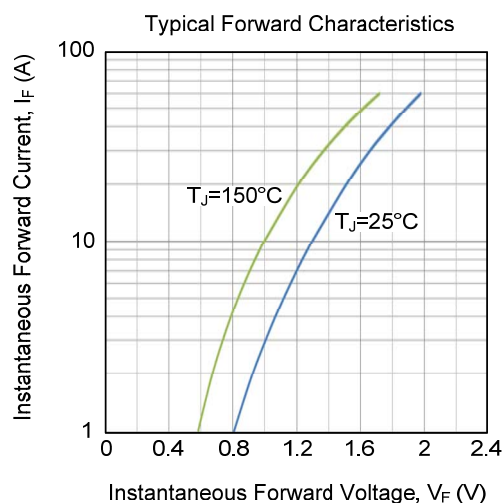
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward voltage drop (Note 1)	V _F	I _F =30A		T _J =25°C	1.65	2.1 V
				T _J =125°C	1.37	1.8 V
Instantaneous Reverse Current (Note 2)	I _R	V _R =V _{RRM}		T _J =25°C	10	μA
				T _J =125°C	100	μA
Reverse recovery time	t _{rr}	I _F =1.0A, V _R =30V, dI _F /dt=-100A/μs, T _J =25°C		31		ns
		I _F =30A, V _R =30V, dI _F /dt=-100A/μs, T _J =25°C		30		ns
		I _F =30A, V _R =400V, dI _F /dt=-100A/μs, T _J =25°C		58		ns

Notes: 1. Pulse test: t_p = 380 ms, $\delta=2\%$.

2. Pulse test: t_p = 5 ms, $\delta=2\%$.

3. To evaluate the conduction losses use the following equation: $P=1.4 \times I_{F(AV)} + 0.027 I_F^2$ (RMS).

■ TYPICAL CHARACTERISTICS



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