

**UFR10040**

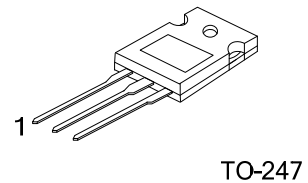
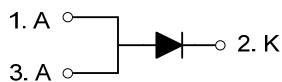
Preliminary

FAST RECOVERY DIODE**FAST RECOVERY DIODE****DESCRIPTION**

The UTC **UFR10040** 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

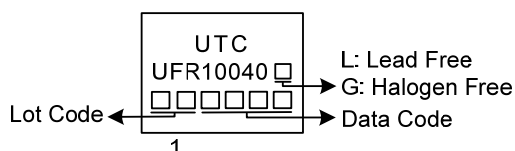
- * Planar Technique
- * High Switch Speed
- * High Reliability

**SYMBOL****ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UFR10040L-T47-T	UFR10040G-T47-T	TO-247	A	K	A	Tube

Note: Pin Assignment: G: Gate D: Drain S: Source

UFR10040G-T47-T	(1)Packing Type	(1) T: Tube
	(2)Package Type	(2) T47: TO-247
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

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}	400	V
Average forward current, $\delta=0.5\%$	I _{F(AV)}	75	A
Repetitive peak forward current	I _{FRM}	150	A
Surge non repetitive forward current	I _{FSM}	500	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	θ_{JC}	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 =75A			1.7	V
					1.5	V
Junction to Case (Note 2)	I _R	V _R =V _{RRM}			100	μA
					500	μA
Reverse recovery time	t _{rr}	I _F =1.0A, V _R =30V, dI _F /dt=-200A/μs, T _J =25°C			60	ns
		I _F =30A, V _R =30V, dI _F /dt=-200A/μs, T _J =25°C			80	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).

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