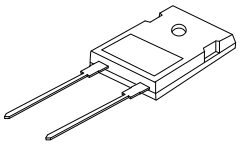
UFR75120

Preliminary ***FAST RECOVERY EPITAXIAL DIODE***

SUPERFAST RECOVERY RECTIFIER



TO-247-2

■ DESCRIPTION

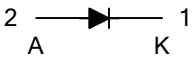
The UTC **UFR75120** is a superfast recovery rectifier, has half the recovery time of ultrafast diodes.

The UTC **UFR75120** is intended for use as a freewheeling/clamping diode and rectifier in a variety of high frequency switching power supplies and other power switching applications. Its low stored charge and hyperfast soft recovery characteristic minimize ringing and electrical noise in many power switching circuits, thus reducing power loss in the switching transistors.

■ FEATURES

* Ultrafast soft recovery
* High reverse voltage capability
* High junction temperature

■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
UFR75120L-T472-T	UFR75120G-T472-T	TO-247-2	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

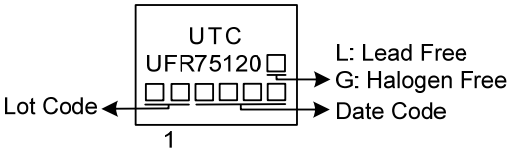
UFR75120G-T472-T

(1)Packing Type — (1) T: Tube

(2)Package Type — (2) T472: TO-247-2

(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}	1200	V
Working Peak Reverse Voltage		V_{RWM}	1200	V
DC Blocking Voltage		V_R	1200	V
Average forward current, δ= 0.5%	T_C=42°C	$I_{F(AV)}$	75	A
Repetitive peak forward current	Square Wave, 20kHz	I_{FRM}	150	A
Surge non repetitive forward current	Halfwave, 1 Phase, 60Hz	I_{FSM}	500	A
Avalanche Energy		E_{AVL}	50	mJ
Operating Junction Temperature		T_J	-65 ~ +175	°C
Storage Temperature Range		T_{STG}	-65 ~ +175	°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	T_C=25°C			3.2	V
			T_C=150°C			2.6	V
Maximum Reverse Leakage Current (Note 2)	I_R	V_R=V_{RRM}	T_C=25°C			250	μA
			T_C=150°C			2	mA
Reverse recovery time	t_{rr}	I_F=1A, dIF/dt=100A/μs				85	ns