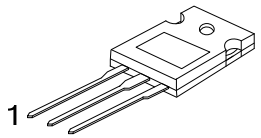
UMUR6030C

DIODE

SWITCHMODE POWER RECTIFIERS



TO-247

■ DESCRIPTION

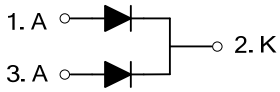
The UTC **UMUR6030C** is a switchmode power rectifier, it uses UTC's advanced technology to provide customers with high voltage capability, low forward drop and low leakage current, etc.

The UTC **UMUR6030C** is suitable for use in switching power supplies, inverters and as free wheeling diodes.

■ FEATURES

* Ultrafast and nanosecond recovery time
* High voltage capability
* Low forward drop
* Low leakage current

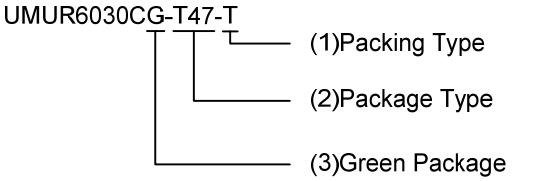
■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UMUR6030CL-T47-T	UMUR6030CG-T47-T	TO-247	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

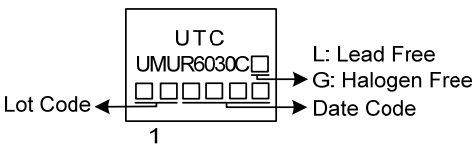


(1) T: Tube

(2) T47: TO-247

(3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage		V_{RRM}	300	V
Working Peak Reverse Voltage		V_{RWM}	300	V
DC Blocking Voltage		V_R	300	V
Average Forward Current	T_C=100°C	I_O	30	A
	Total Device		60	A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions, halfwave, single phase, 60 Hz)		I_{FSM}	164	A
Operating Junction Temperature		T_J	-65 ~ +150	°C
Storage Temperature		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}	1.25	°C/W

■ ELECTRICAL CHARACTERISTICS

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	I_R=1mA	300			V
Forward Voltage Drop	V_{FM}	I_F=30A, T_C=25°C			1.4	V
		I_F=30A, T_C=150°C			1.2	V
Leakage Current (Note 1)	I_{RM}	Rated DC voltage, T_J=150°C			500	μA
		Rated DC voltage, T_J=25°C			10	μA
Maximum Reverse Recovery Time	t_{rr}	I_F=1.0A, di/dt=50A/μs		42		ns

Notes: 1. Short duration pulse test used to minimize self-heating effect.
2. Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS