



UMUR3060C

DIODE

SWITCHMODE POWER RECTIFIERS

DESCRIPTION

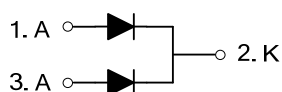
The UTC **UMUR3060C** is a switchmode power rectifier, it uses UTC's advanced technology to provide customers with high voltage capability, low forward drop and low leakage current, etc.

The UTC **UMUR3060C** 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



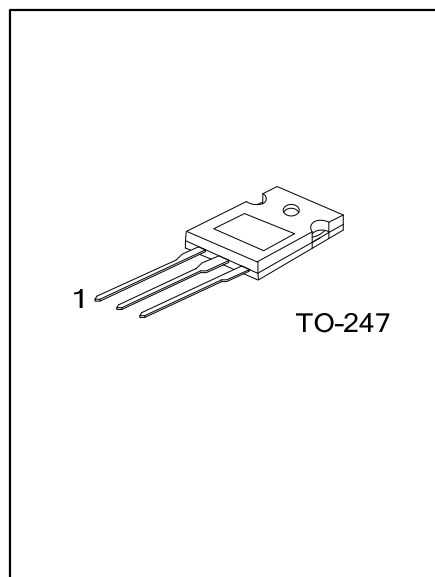
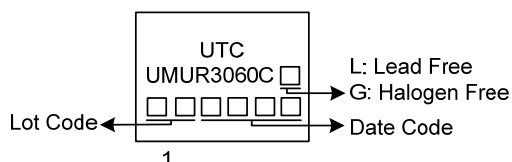
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UMUR3060CL-T47-T	UMUR3060CG-T47-T	TO-247	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Common Cathode

UMUR3060CG-T47-T	(1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube (2) T47: TO-247 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Working Peak Reverse Voltage		V_{RWM}	600	V
DC Blocking Voltage		V_R	600	V
Average Forward Current	$T_C=140^{\circ}\text{C}$	I_O	15	A
	Total Device		30	A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions, halfwave, single phase, 60 Hz)		I_{FSM}	180	A
Power Dissipation ($T_A=25^{\circ}\text{C}$)		P_D	3.1	W
Operating Junction Temperature		T_J	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

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 RESISTANCE

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	40	$^{\circ}\text{C/W}$
Junction to Case	θ_{JC}	1.5	$^{\circ}\text{C/W}$

■ ELECTRICAL CHARACTERISTICS

Single phase, half wave, 60Hz, resistive or inductive load.

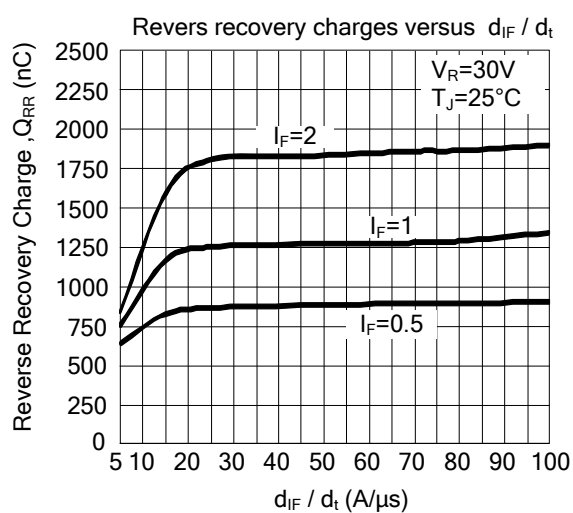
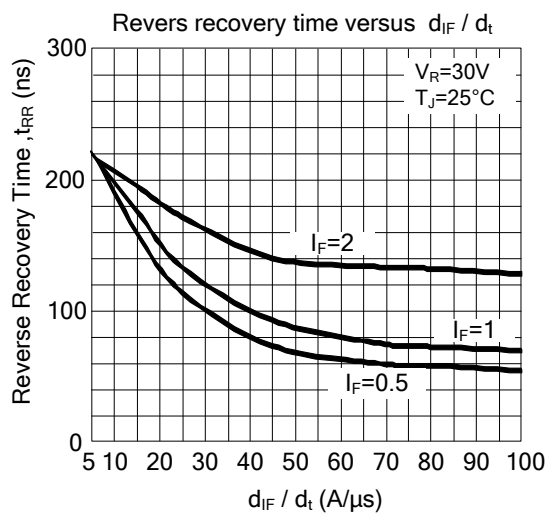
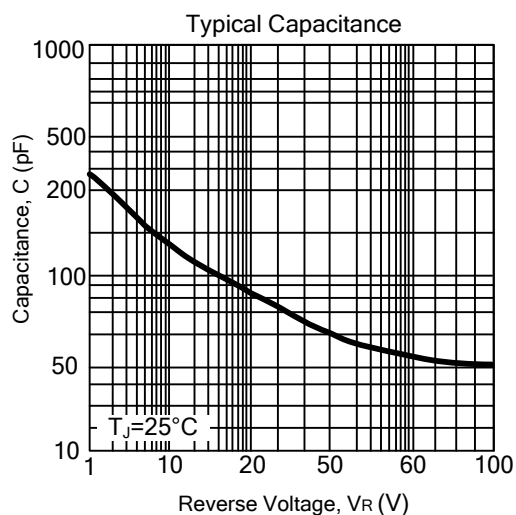
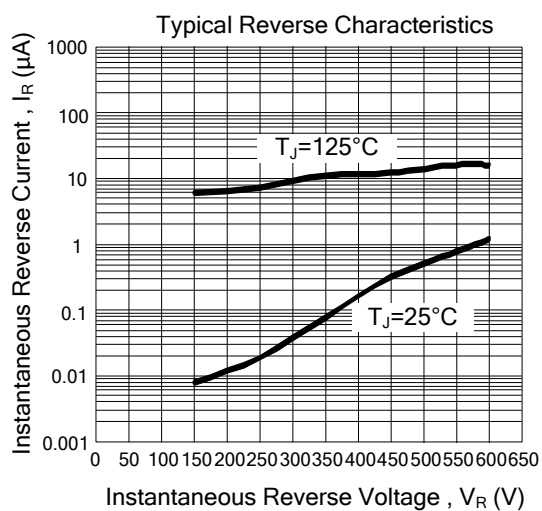
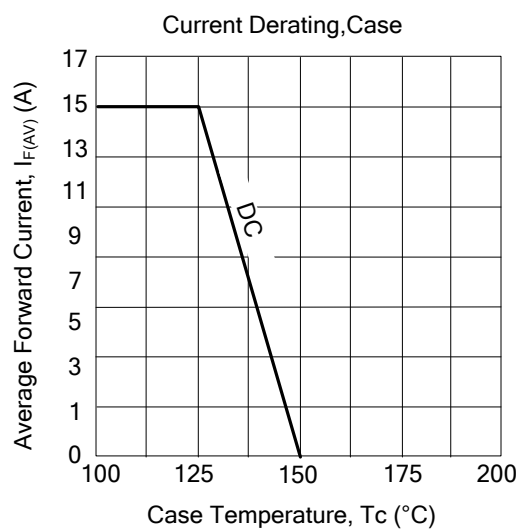
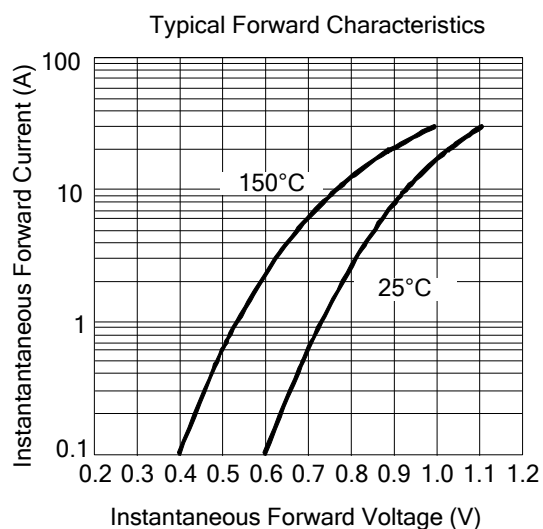
For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=1\text{mA}$	600			V
Forward Voltage Drop	V_{FM}	$I_F=15\text{A}, T_C=25^{\circ}\text{C}$			1.7	V
		$I_F=15\text{A}, T_C=150^{\circ}\text{C}$			1.4	V
Leakage Current (Note 1)	I_{RM}	Rated DC voltage, $T_J=150^{\circ}\text{C}$			1000	μA
		Rated DC voltage, $T_J=25^{\circ}\text{C}$			10	μA
Maximum Reverse Recovery Time	t_{rr}	$I_F=1.0\text{A}, I_{RM}=1.7\text{A},$			60	ns
Reverse Recovery Charge	Q_{rr}	$di/dt=50\text{A}/\mu\text{s}$		48		nC

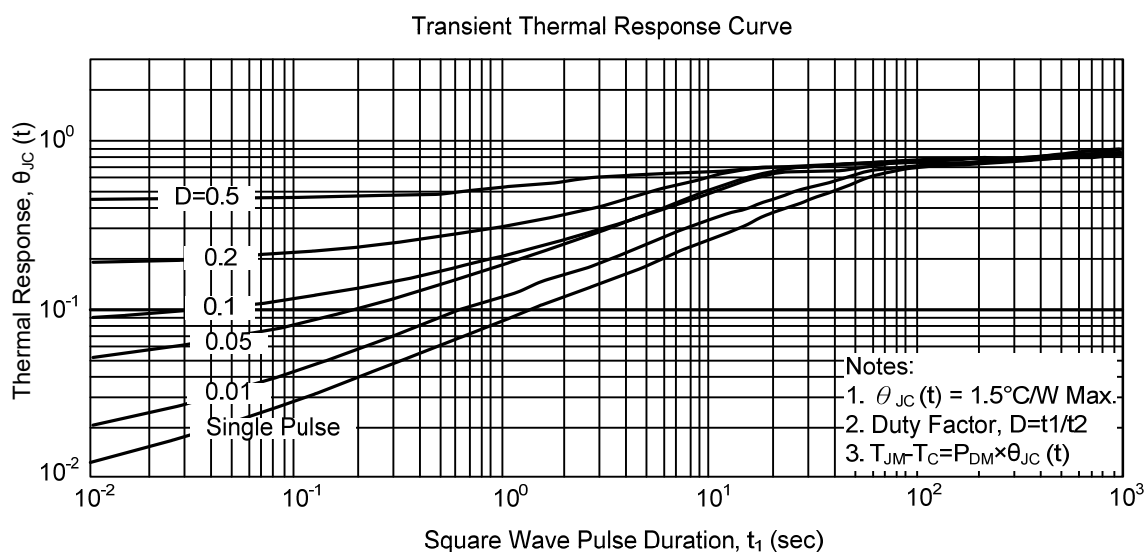
Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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