



UMUR3060

DIODE

SWITCHMODE POWER RECTIFIERS

DESCRIPTION

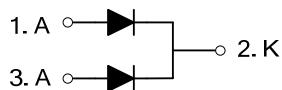
The UTC **UMUR3060** is a switchmode power rectifier, it uses UTC's advanced technology to provide customers with high voltage capability, low forward drop and low leakage current, etc.

The UTC **UMUR3060** 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

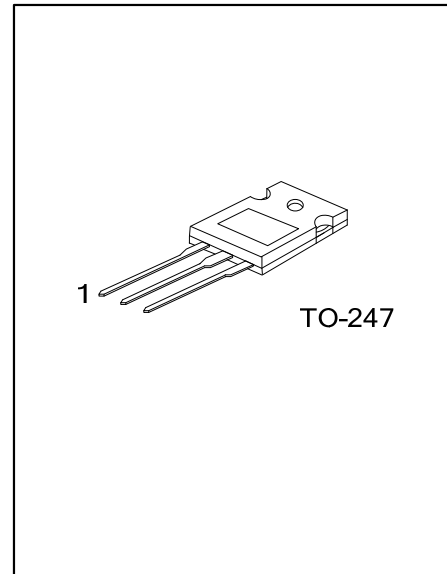
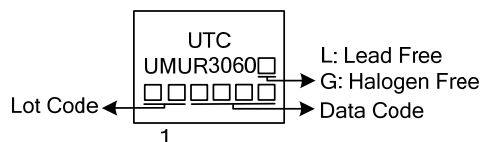


ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UMUR3060L-T47-T	UMUR3060G-T47-T	TO-247	A	K	A	Tube

UMUR3060L-T47-T	(1)Packing Type	(1) T: Tube
	(2)Package Type	(2) T47: TO-247
	(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

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
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	$^{\circ}\text{C}/\text{W}$
Junction to Case	θ_{JC}	1.5	$^{\circ}\text{C}/\text{W}$

■ ELECTRICAL CHARACTERISTICS

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

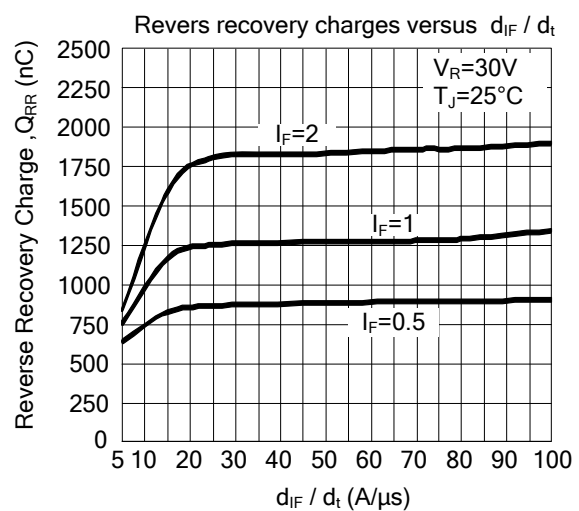
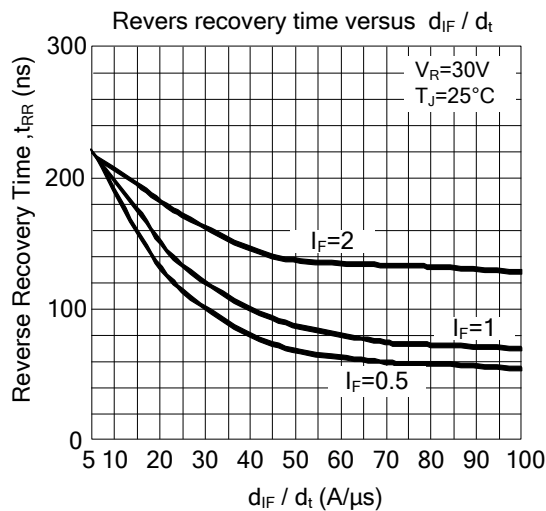
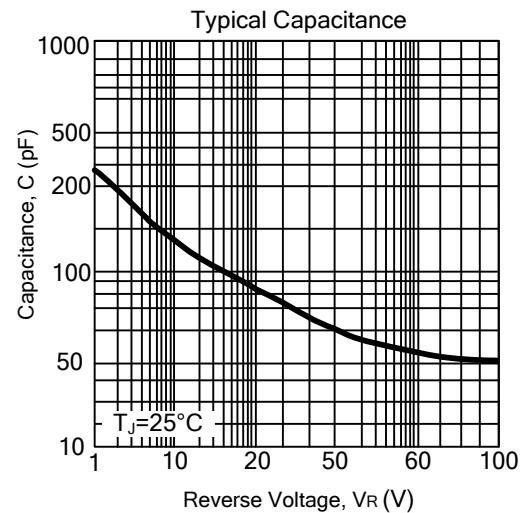
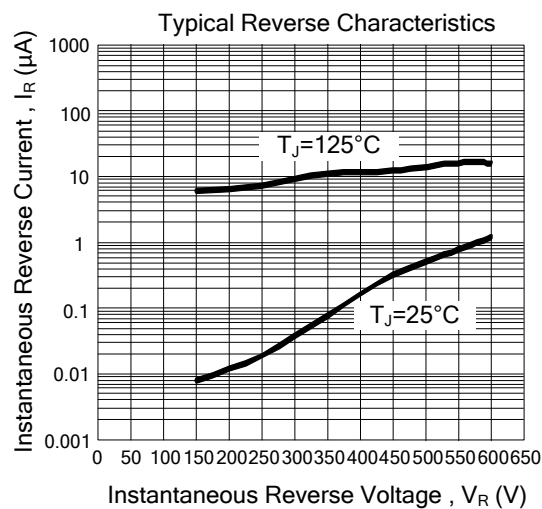
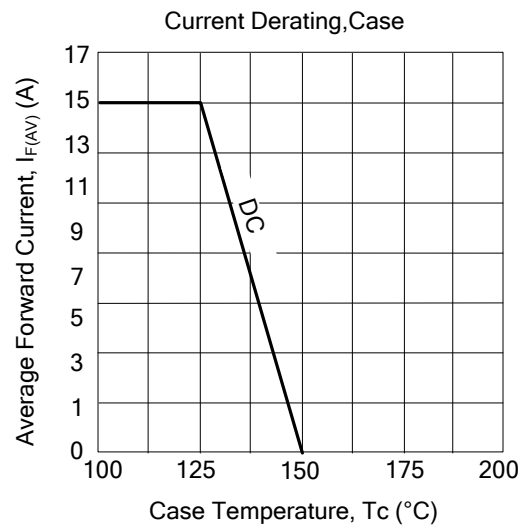
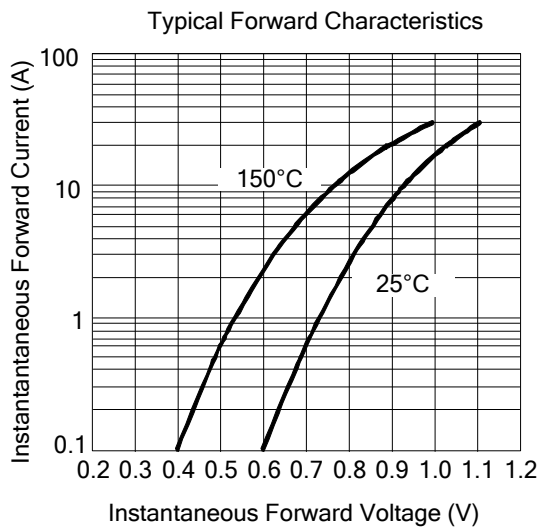
For capacitance load, derate current by 20%.

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}	$I_F=1.0\text{A}, di/dt=50\text{A}/\mu\text{s}$			60	ns

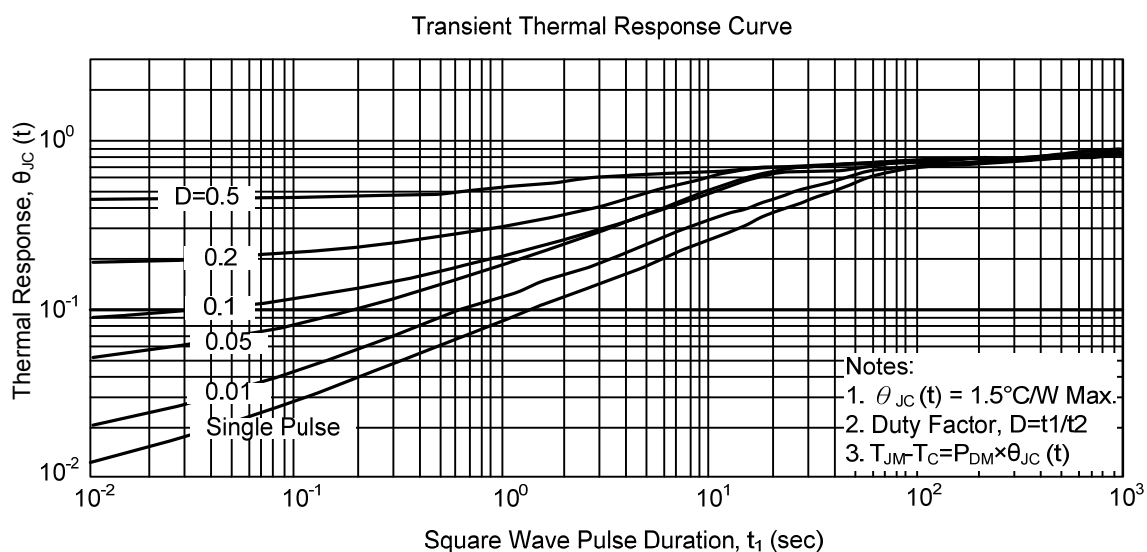
Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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