



## UMUR3060

DIODE

### SWITCHMODE POWER RECTIFIERS

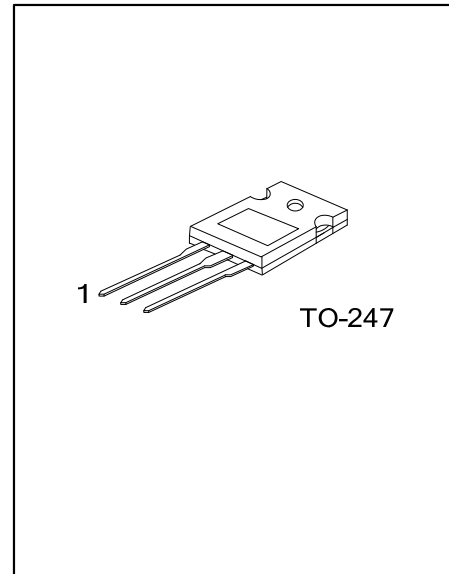
#### DESCRIPTION

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.

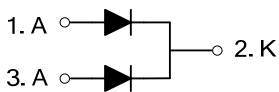
The UTC **UMUR3060** is suitable for use in switching power supplies, inverters and as free wheeling diodes.

#### FEATURES

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



#### SYMBOL

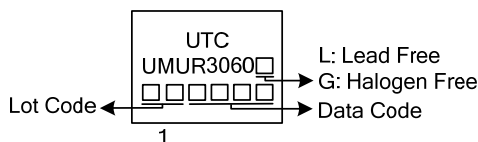


#### ORDERING INFORMATION

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

<p>UMUR3060L-T47-T</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) T: Tube (2) T47: TO-247 (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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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	$I_O$	$T_C=140^{\circ}\text{C}$	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	$\theta_{JA}$	40	$^{\circ}\text{C}/\text{W}$
Junction to Case	$\theta_{JC}$	1.5	$^{\circ}\text{C}/\text{W}$

## ■ ELECTRICAL CHARACTERISTICS

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

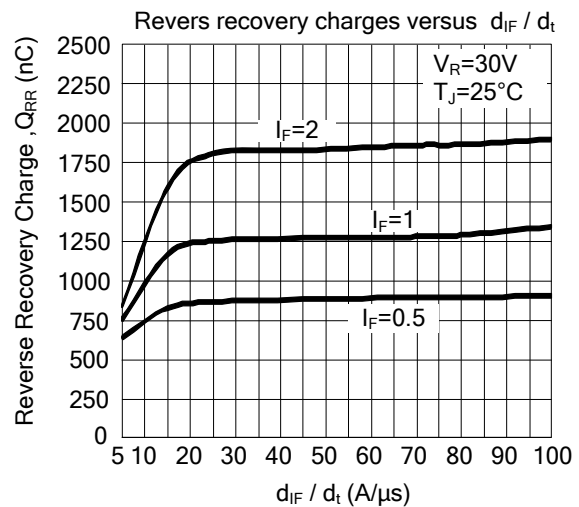
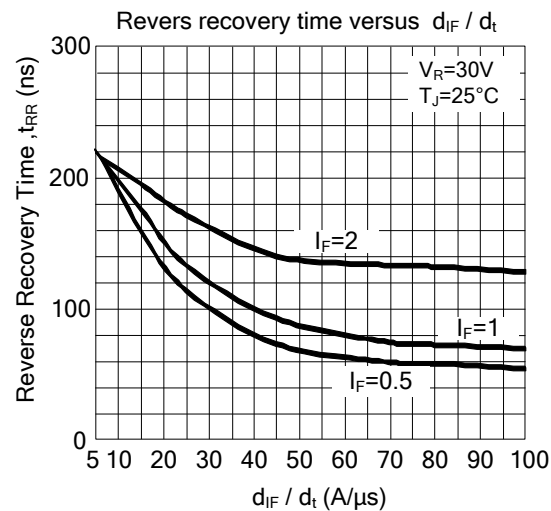
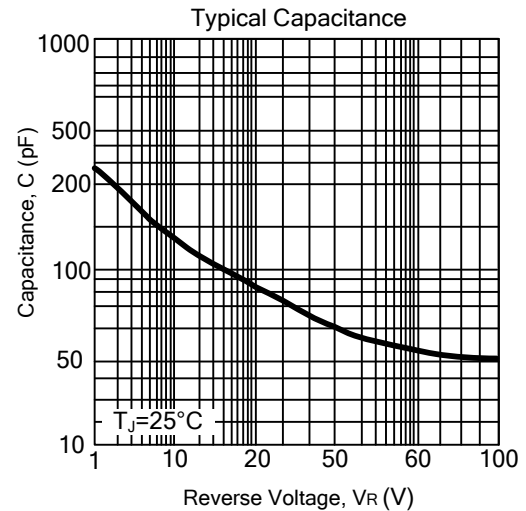
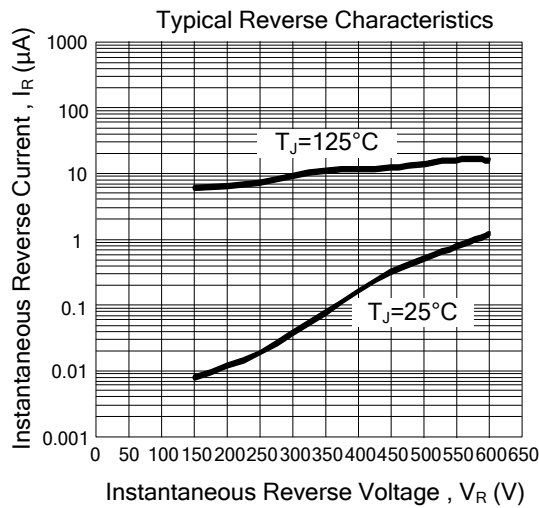
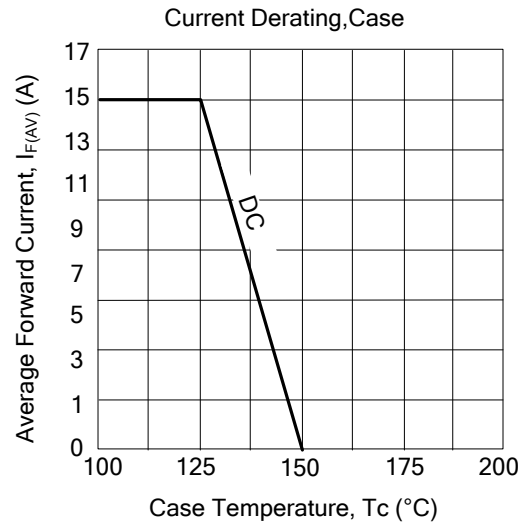
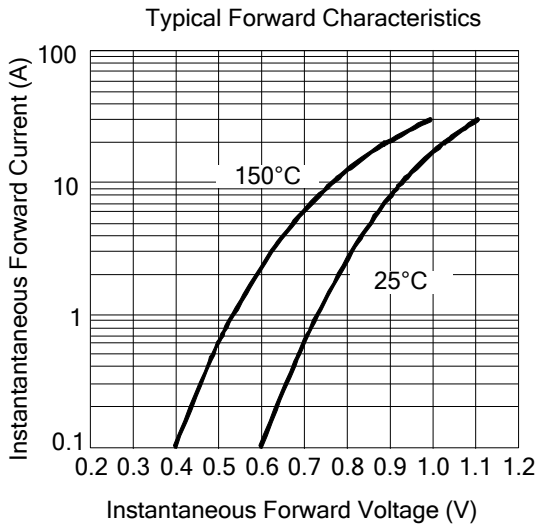
For capacitance load, derate current by 20%.

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	$\mu\text{A}$
		Rated DC voltage, $T_J=25^{\circ}\text{C}$			10	$\mu\text{A}$
Maximum Reverse Recovery Time	$t_{rr}$	$I_F=1.0\text{A}, di/dt=50\text{A}/\mu\text{s}$			60	ns

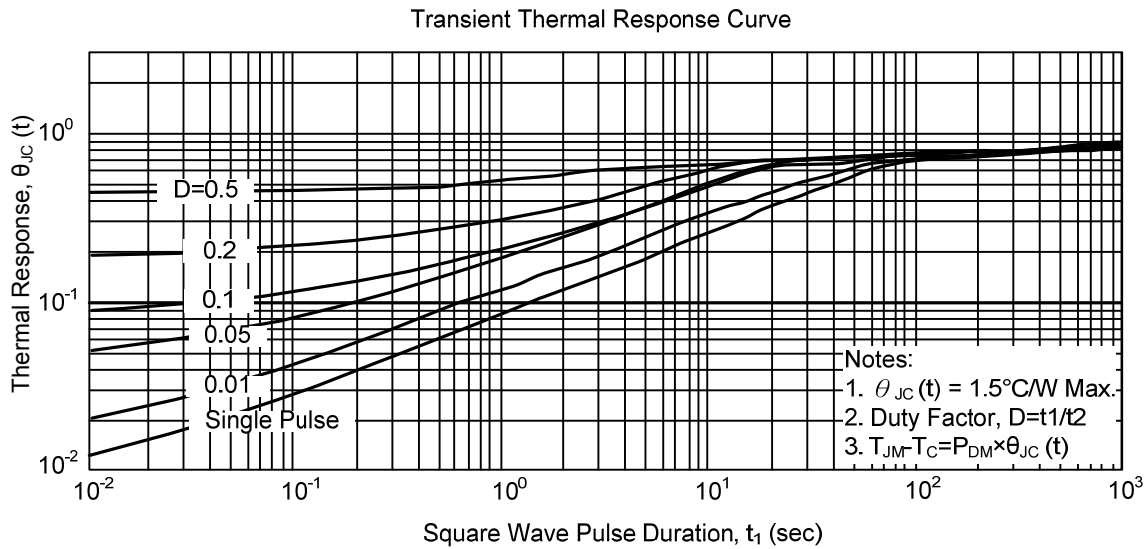
Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

## TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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