



## UA60UP20

DIODE

### ULTRAFAST RECOVERY POWER RECTIFIER

#### DESCRIPTION

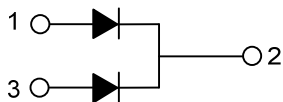
The UTC **UA60UP20** is an ultrafast recovery power rectifier, it uses UTC's advanced technology to provide customers with high peak repetitive reverse voltage and low leakage current, etc.

The UTC **UA60UP20** is suitable for switching mode power supply and power switching circuits, etc.

#### FEATURES

- \* High peak repetitive reverse voltage
- \* Ultra-short reverse recovery time
- \* Low leakage current

#### SYMBOL



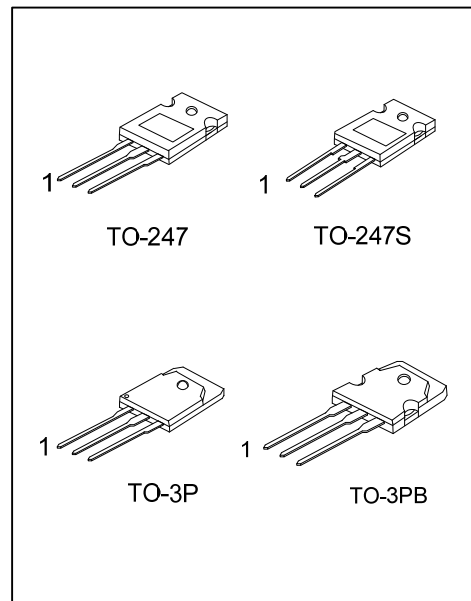
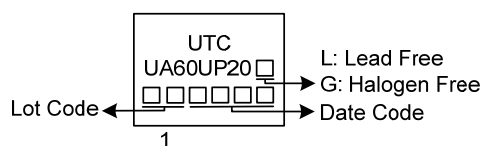
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UA60UP20L-T3B-T	UA60UP20G-T3B-T	TO-3PB	A	K	A	Tube
UA60UP20L-T3P-T	UA60UP20G-T3P-T	TO-3P	A	K	A	Tube
UA60UP20L-T47-T	UA60UP20G-T47-T	TO-247	A	K	A	Tube
UA60UP20L-T47S-T	UA60UP20G-T47S-T	TO-247S	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>UA60UP20G-T3B-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) T: Tube</p> <p>(2) T3B: TO-3PB, T3P: TO-3P, T47: TO-247 T47S: TO-247S</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS (per diode) ( $T_C=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	$V_R$	200	V
Working Peak Reverse Voltage	$V_{RWM}$	200	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	V
Average Forward Current	Per Leg	30	A
	Total Device	60	A
Non-Repetitive Peak Surge Current 60Hz Single Half-Sine Wave	$I_{FSM}$	120	A
Operating Junction Temperature	$T_J$	+150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +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 CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

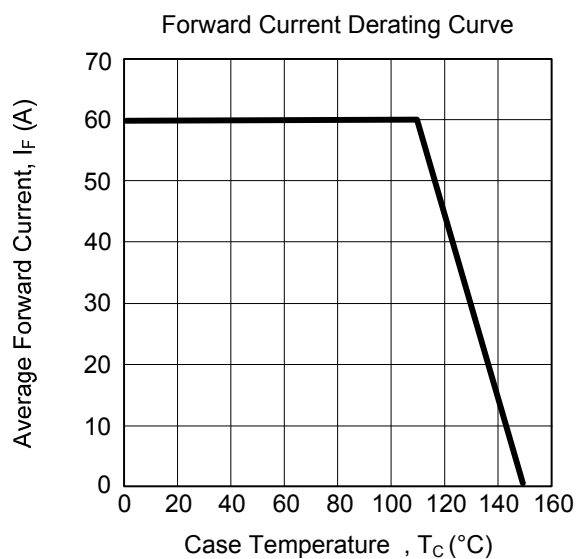
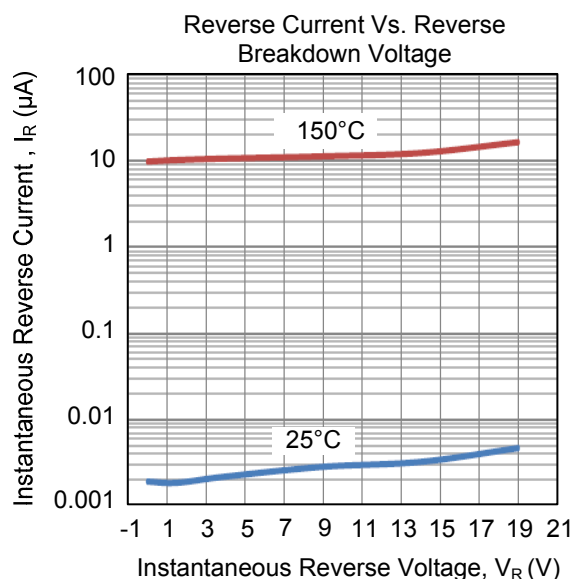
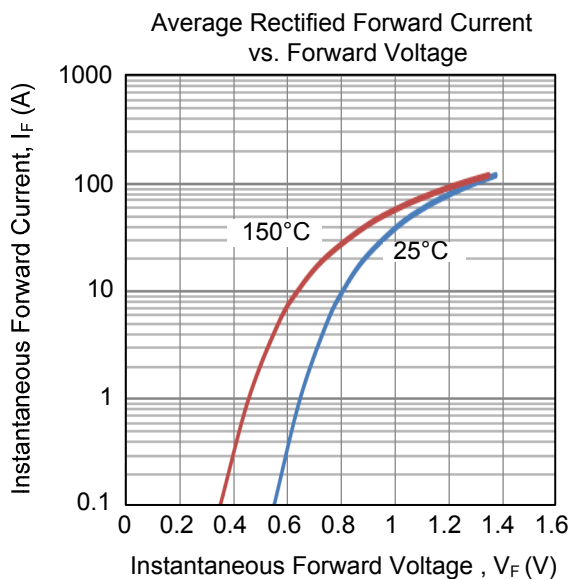
PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	$\theta_{JC}$	0.53	$^{\circ}\text{C/W}$

■ ELECTRICAL CHARACTERISTICS (per diode)  $T_A=25^{\circ}\text{C}$  unless otherwise noted

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage (Note)	$V_F$	$I_F=30\text{A}$ , $T_C=25^{\circ}\text{C}$			1.50	V
		$I_F=30\text{A}$ , $T_C=150^{\circ}\text{C}$			1.30	V
Instantaneous Reverse Current (Note)	$I_R$	$V_R=200\text{V}$ , $T_C=25^{\circ}\text{C}$			100	$\mu\text{A}$
		$V_R=200\text{V}$ , $T_C=150^{\circ}\text{C}$			500	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$	$I_F=1.0\text{A}$ , $di/dt=100\text{A}/\mu\text{s}$ , $V_{CC}=30\text{V}$			45	ns
		$I_F=30\text{A}$ , $di/dt=200\text{A}/\mu\text{s}$ , $V_{CC}=100\text{V}$			55	ns
Recovered Charge	$Q_{rr}$	$I_F=30\text{A}$ , $di/dt=200\text{A}/\mu\text{s}$ , $V_{CC}=100\text{V}$		128		nC

Note: Pulse Test: Pulse Width=300 $\mu\text{s}$ , Duty Cycle=2.0%.

## ■ TYPICAL CHARACTERISTICS



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