



UA60UP40

DIODE

ULTRAFAST RECOVERY POWER RECTIFIER

DESCRIPTION

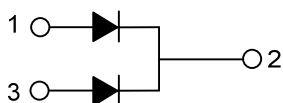
The UTC **UA60UP40** is an ultrafast recovery power rectifier, it uses UTC's advanced technology to provide customers with high peak repetitive reverse voltage and low leakage current, etc.

The UTC **UA60UP40** 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



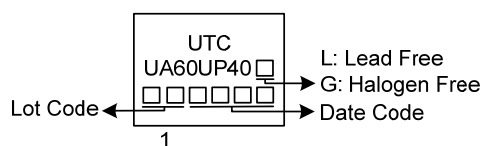
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UA60UP40L-T3B-T	UA60UP40G-T3B-T	TO-3PB	A	K	A	Tube
UA60UP40L-T3P-T	UA60UP40G-T3P-T	TO-3P	A	K	A	Tube
UA60UP40L-T47-T	UA60UP40G-T47-T	TO-247	A	K	A	Tube
UA60UP40L-T47S-T	UA60UP40G-T47S-T	TO-247S	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>UA60UP40G-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>
---	---

MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_R	400	V
Working Peak Reverse Voltage	V_{RWM}	400	V
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
Average Rectified Forward Current, $T_C=135^{\circ}\text{C}$	$I_{F(AV)}$	30	A
Non-Repetitive Peak Surge Current 60Hz Single Half-Sine Wave	I_{FSM}	210	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)

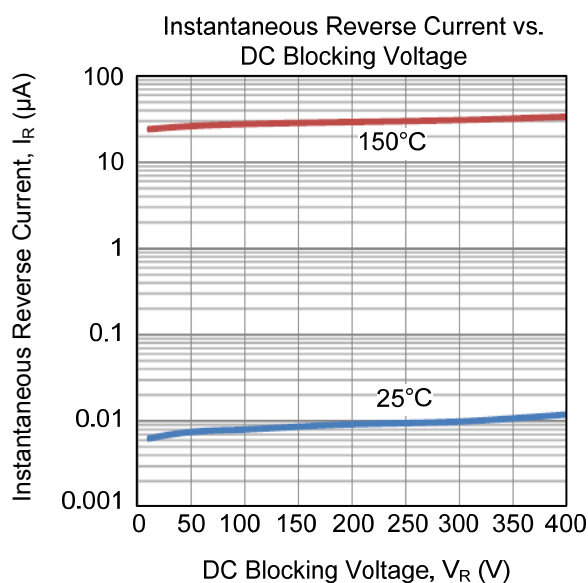
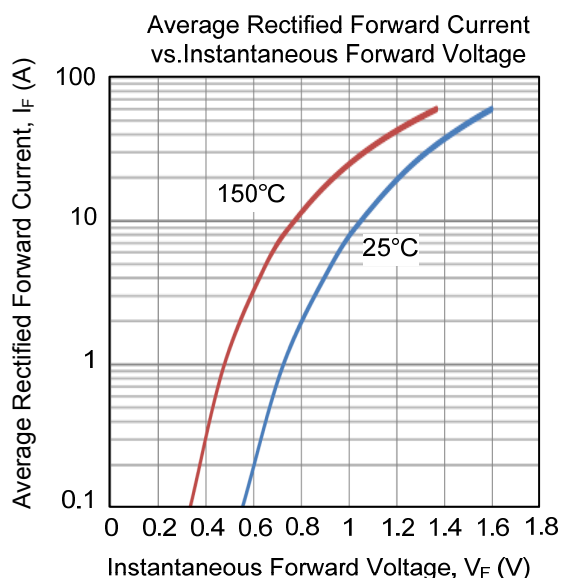
PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ_{JC}	0.53	$^{\circ}\text{C/W}$

■ 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	$I_F=30\text{A}$, $T_C=25^{\circ}\text{C}$			1.7	V
		$I_F=30\text{A}$, $T_C=150^{\circ}\text{C}$			1.4	V
Instantaneous Reverse Current (Note)	I_R	$V_R=400\text{V}$, $T_C=25^{\circ}\text{C}$			100	μA
		$V_R=400\text{V}$, $T_C=150^{\circ}\text{C}$			500	μA
Reverse Recovery Time	t_{rr}	$I_F=1.0\text{A}$, $di/dt=100\text{A}/\mu\text{s}$, $V_{CC}=30\text{V}$, $T_C=25^{\circ}\text{C}$			50	ns
		$I_F=30\text{A}$, $di/dt=200\text{A}/\mu\text{s}$, $V_{CC}=200\text{V}$			70	ns
Recovered Charge	Q_{rr}	$I_F=30\text{A}$, $di/dt=200\text{A}/\mu\text{s}$, $V_{CC}=200\text{V}$			190	nC

Note: Pulse Test: Pulse Width=300 μs , Duty Cycle=2.0%.

■ TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.