



UA60UP30

Preliminary

DIODE

ULTRAFAST RECOVERY POWER RECTIFIER

DESCRIPTION

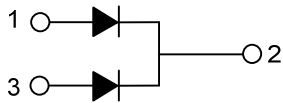
The UTC **UA60UP30** is an ultrafast recovery power rectifier, it uses UTC's advanced technology to provide customers with high peak repetitive reverse voltage and low leakage current, etc.

The UTC **UA60UP30** 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

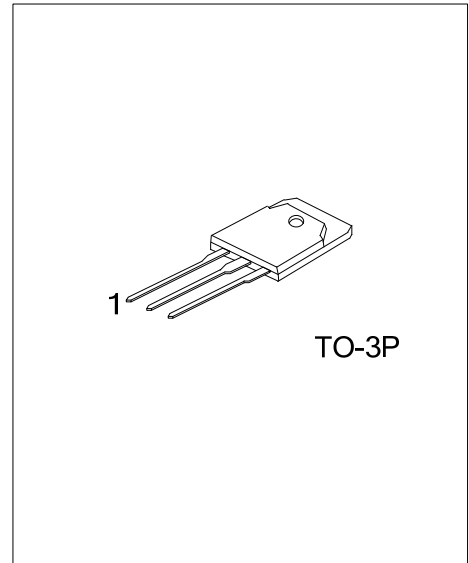


ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UA60UP30L-T3P-T	UA60UP30G-T3P-T	TO-3P	A	K	A	Tube

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

UA60UP30L-T3P-T	(1)Packing Type (2)Package Type (3)Lead Free	(1) T: Tube (2) T3P: TO-3P (3) L: Lead Free, G: Halogen Free
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■ ABSOLUTE MAXIMUM RATINGS (per diode) $T_A=25^{\circ}\text{C}$ unless otherwise noted

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_R	300	V
Working Peak Reverse Voltage	V_{RWM}	300	V
Peak Repetitive Reverse Voltage	V_{RRM}	300	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}	300	A
Storage Temperature	T_{STG}	+150	$^{\circ}\text{C}$
Operating Junction Temperature	T_J	-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 noted

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	$I_F=30\text{A}$, $T_C=25^{\circ}\text{C}$			1.50	V
		$I_F=30\text{A}$, $T_C=150^{\circ}\text{C}$			1.30	V
Instantaneous Reverse Current (Note)	I_R	$V_R=300\text{V}$, $T_C=25^{\circ}\text{C}$			100	μA
		$V_R=300\text{V}$, $T_C=150^{\circ}\text{C}$			500	μA
Reverse Recovery Time	t_{RR}	$I_F=1.0\text{A}$, $di/dt=100\text{A}/\mu\text{s}$, $V_{CC}=30\text{V}$, $T_C=25^{\circ}\text{C}$			45	ns
		$I_F=30\text{A}$, $di/dt=200\text{A}/\mu\text{s}$, $V_{CC}=195\text{V}$, $T_C=25^{\circ}\text{C}$			55	ns
Recovered Charge	Q_{RR}	$I_F=30\text{A}$, $di/dt=200\text{A}/\mu\text{s}$, $V_{CC}=195\text{V}$, $T_C=25^{\circ}\text{C}$		50		nC
Avalanche Energy	W_{AVL}	$L=20\text{mH}$	20			mJ

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

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