



## UA60UP30

DIODE

### ULTRAFAST RECOVERY POWER RECTIFIER

#### DESCRIPTION

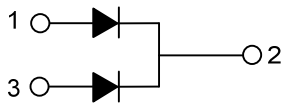
The UTC **UA60UP30** is an ultrafast recovery power rectifier, it uses UTC's advanced technology to provide customers with high peak repetitive reverse voltage and low leakage current, etc.

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



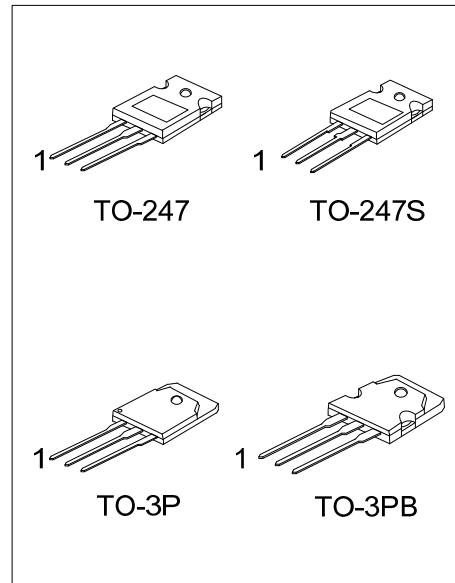
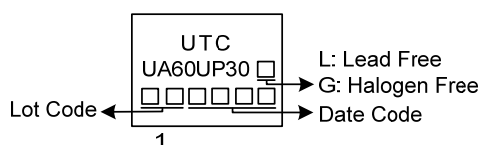
#### ORDERING INFORMATION

| Ordering Number  |                  | Package | Pin Assignment |   |   | Packing |
|------------------|------------------|---------|----------------|---|---|---------|
| Lead Free        | Halogen Free     |         | 1              | 2 | 3 |         |
| UA60UP30L-T3B-T  | UA60UP30G-T3B-T  | TO-3PB  | A              | K | A | Tube    |
| UA60UP30L-T3P-T  | UA60UP30G-T3P-T  | TO-3P   | A              | K | A | Tube    |
| UA60UP30L-T47-T  | UA60UP30G-T47-T  | TO-247  | A              | K | A | Tube    |
| UA60UP30L-T47S-T | UA60UP30G-T47S-T | TO-247S | A              | K | A | Tube    |

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

|   |   |
|---|---|
| <p>UA60UP30G-T3B-T</p> <p>(1) Packing Type<br/>(2) Package Type<br/>(3) Green Package</p> | <p>(1) T: Tube<br/>(2) T47: TO-247, T47S: TO-247S, T3B: TO-3PB<br/>T3P: TO-3P<br/>(3) G: Halogen Free and Lead Free, L: Lead Free</p> |
|---|---|

#### MARKING



■ ABSOLUTE MAXIMUM RATINGS (PER DIODE) (T<sub>A</sub>=25°C, unless otherwise specified)

| PARAMETER   | SYMBOL             | RATINGS    | UNIT |
|---|--------------------|------------|------|
| DC Blocking Voltage   | V <sub>R</sub>     | 300        | V    |
| Working Peak Reverse Voltage                                    | V <sub>RWM</sub>   | 300        | V    |
| Peak Repetitive Reverse Voltage                                 | V <sub>RRM</sub>   | 300        | V    |
| Average Rectified Forward Current, T <sub>C</sub> =135°C        | I <sub>F(AV)</sub> | 30         | A    |
| Non-Repetitive Peak Surge Current<br>60Hz Single Half-Sine Wave | I <sub>FSM</sub>   | 200        | A    |
| Operating Junction Temperature                                  | T <sub>J</sub>     | -55 ~ +150 | °C   |
| Storage Temperature   | T <sub>STG</sub>   | +150       | °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

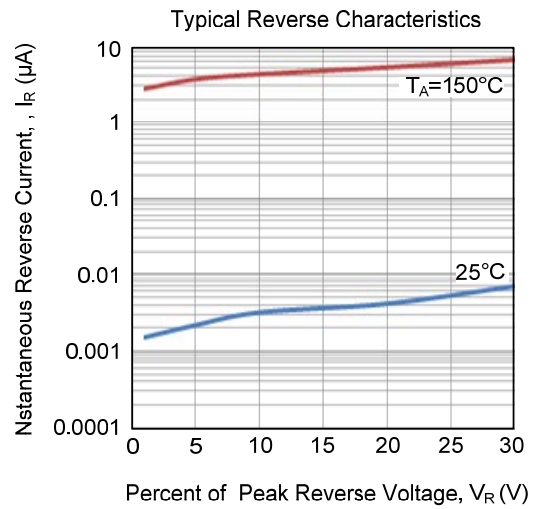
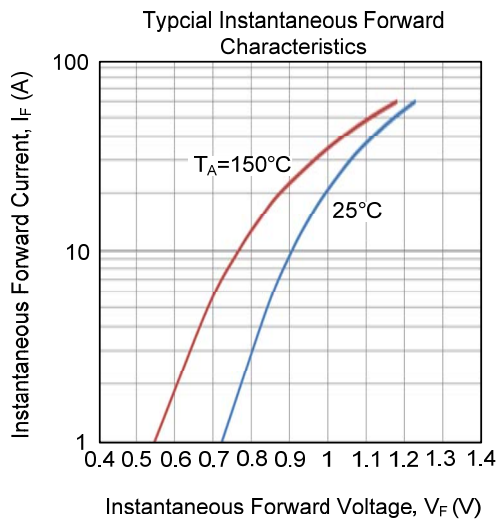
| PARAMETER        | SYMBOL          | RATINGS | UNIT |
|------------------|-----------------|---------|------|
| Junction to Case | θ <sub>JC</sub> | 0.53    | °C/W |

■ ELECTRICAL CHARACTERISTICS (PER DIODE) (T<sub>A</sub>=25°C, unless otherwise specified)

| PARAMETER                            | SYMBOL          | TEST CONDITIONS  | MIN | TYP | MAX  | UNIT |
|--------------------------------------|-----------------|--|-----|-----|------|------|
| Instantaneous Forward Voltage (Note) | V <sub>F</sub>  | I <sub>F</sub> =30A, T <sub>C</sub> =25°C  |     |     | 1.50 | V    |
|                                      |                 | I <sub>F</sub> =30A, T <sub>C</sub> =150°C   |     |     | 1.30 | V    |
| Instantaneous Reverse Current (Note) | I <sub>R</sub>  | V <sub>R</sub> =300V, T <sub>C</sub> =25°C   |     |     | 100  | μA   |
|                                      |                 | V <sub>R</sub> =300V, T <sub>C</sub> =150°C  |     |     | 500  | μA   |
| Reverse Recovery Time                | t <sub>rr</sub> | I <sub>F</sub> =1.0A, di/dt=100A/μs, V <sub>CC</sub> =30V,<br>T <sub>C</sub> =25°C |     |     | 45   | ns   |
|                                      |                 | I <sub>F</sub> =30A, di/dt=200A/μs,<br>V <sub>CC</sub> =195V, T <sub>C</sub> =25°C |     |     | 55   | ns   |
| Recovered Charge                     | Q <sub>rr</sub> | I <sub>F</sub> =30A, di/dt=200A/μs,<br>V <sub>CC</sub> =195V, T <sub>C</sub> =25°C |     | 220 |      | nC   |

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

■ TYPICAL CHARACTERISTICS



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