



## FCU20UC30

Preliminary

DIODE

### SILICON DIODE

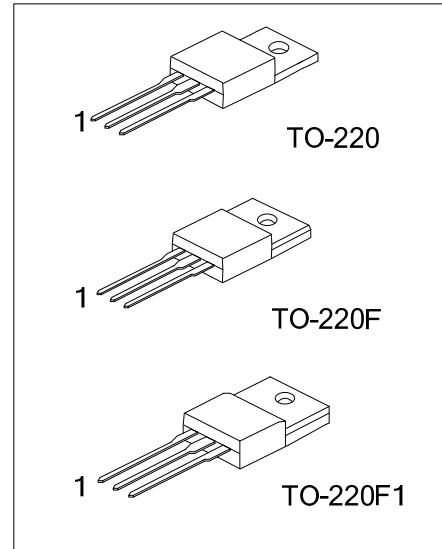
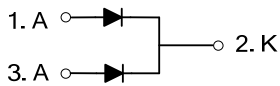
#### DESCRIPTION

The UTC **FCU20UC30** is a diode, it uses UTC's advanced technology to provide customers with low peak reverse current, etc.

#### FEATURES

\* Low peak reverse current

#### SYMBOL



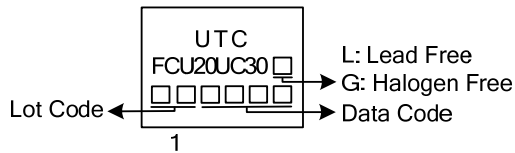
#### ORDERING INFORMATION

| Ordering Number  |                  | Package  | Pin Assignment |   |   | Packing |
|------------------|------------------|----------|----------------|---|---|---------|
| Lead Free        | Halogen Free     |          | 1              | 2 | 3 |         |
| FCU20UC30L-TA3-T | FCU20UC30G-TA3-T | TO-220   | A              | K | A | Tube    |
| FCU20UC30L-TF3-T | FCU20UC30G-TF3-T | TO-220F  | A              | K | A | Tube    |
| FCU20UC30L-TF1-T | FCU20UC30G-TF1-T | TO-220F1 | A              | K | A | Tube    |

Note: Pin Assignment: A: Anode K: Cathode

|                         |  |
|-------------------------|--|
| <p>FCU20UC30L-TA3-T</p> | <p>(1) T: Tube<br/> (2) TA3: TO-220, TF3: TO-220F, TF1 : TO-220F1<br/> (3) L: Lead Free, G: Halogen Free and Lead Free</p> |
|-------------------------|--|

#### MARKING



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

| PARAMETER  | SYMBOL       | RATINGS  | UNIT             |
|--|--------------|----------|------------------|
| Repetitive Peak Reverse Voltage                                  | $V_{RRM}$    | 300      | V                |
| Average Rectified Forward Current<br>( $T_C=104^\circ\text{C}$ ) | Per Leg      | 10       | A                |
|  | Total        | 20       | A                |
| R.M.S Forward Current  | $I_{F(RMS)}$ | 22.2     | A                |
| Surge Forward Current  | $I_{FSM}$    | 120      | A                |
| Storage Temperature  | $T_{STG}$    | -40~+150 | $^\circ\text{C}$ |
| Operating Junction Temperature                                   | $T_J$        | -40~+150 | $^\circ\text{C}$ |
| Mounting Torque  | $F_{TOR}$    | 0.5      | N·m              |

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 Case | $\theta_{JC}$ | 2       | $^\circ\text{C}/\text{W}$ |

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

| PARAMETER             | SYMBOL   | TEST CONDITIONS  | MIN | TYP  | MAX  | UNIT          |
|-----------------------|----------|--|-----|------|------|---------------|
| Peak Reverse Current  | $I_{RM}$ | $T_J=25^\circ\text{C}$ , $V_{RM}=V_{RRM}$                                      |     |      | 25   | $\mu\text{A}$ |
| Peak Forward Voltage  | $V_{FM}$ | $T_J=25^\circ\text{C}$ , $I_{FM}=10\text{A}$                                   |     | 1.10 | 1.30 | V             |
| Reverse Recovery Time | $t_{RR}$ | $I_{FM}=10\text{A}$ , $-di/dt=50\text{A}/\mu\text{s}$ , $T_J=25^\circ\text{C}$ |     | 23   | 33   | ns            |

Notes: 1. Short duration pulse test used to minimize self-heating effect.  
2. Thermal resistance junction to case mounted on heatsink.

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