

## UR3KB series Single Phase 3.0 AMPS. Glass Passivated Bridge Rectifiers

### Features

- ✧ UL Recognized
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters laboratory flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed:  
260°C / 10 seconds at 5 lbs., ( 2.3 kg ) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

### Mechanical Data

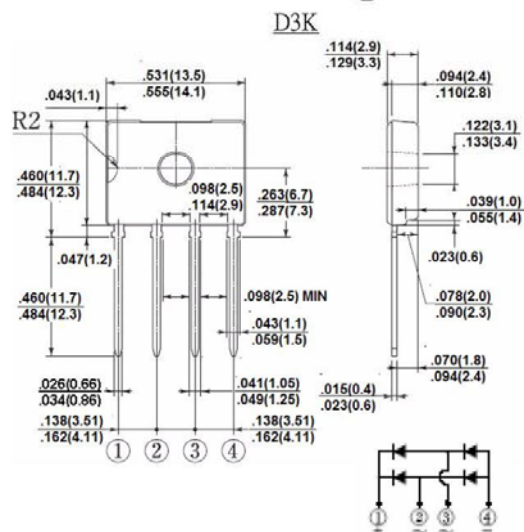
- ✧ Case : Molded plastic body
- ✧ Terminal : Pure tin plated , Lead free. Leads solderable per MIL-STD-202 Method 208
- ✧ Weight : 1.41 grams (0.053 ounce)
- ✧ Mounting Torque : 0.8 N.M max.

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

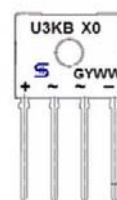
| Type Number                                                                                                          | Symbol            | UR3KB<br>60 | UR3KB<br>80 | UR3KB<br>100 | Units            |
|----------------------------------------------------------------------------------------------------------------------|-------------------|-------------|-------------|--------------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                               | V <sub>RRM</sub>  | 600         | 800         | 1000         | V                |
| Maximum RMS Voltage                                                                                                  | V <sub>RMS</sub>  | 420         | 560         | 700          | V                |
| Maximum DC Blocking Voltage                                                                                          | V <sub>DC</sub>   | 600         | 800         | 1000         | V                |
| Maximum Average Forward Current Without heat sink Ta=29°C<br>60 Hz sine wave resistance load With heat sink Tc=140°C | I <sub>(AV)</sub> | 1.2<br>3.0  |             |              | A                |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )                  | I <sub>FSM</sub>  | 90          |             |              | A                |
| Rating of fusing ( t < 8.3ms )                                                                                       | I <sup>2</sup> t  | 35          |             |              | A <sup>2</sup> S |
| Maximum Instantaneous Forward Voltage @ 1.5A                                                                         | V <sub>F</sub>    | 1.00        |             |              | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                                              | I <sub>R</sub>    | 10          |             |              | uA               |
| Dielectric Strength (Terminal to Case, AC 1minute)                                                                   | V <sub>dis</sub>  | 2.0         |             |              | kV               |
| Typical Thermal Resistance (Note 1)                                                                                  | R <sub>θJA</sub>  | 13.7        |             |              | °C/W             |
|                                                                                                                      | R <sub>θJC</sub>  | 5.2         |             |              |                  |
|                                                                                                                      | R <sub>θJL</sub>  | 5.5         |             |              |                  |
| Operating Temperature Range                                                                                          | T <sub>J</sub>    | -55 to +150 |             |              | °C               |
| Storage Temperature Range                                                                                            | T <sub>STG</sub>  | -55 to +150 |             |              | °C               |

Note 1 : Unit case mounted on 2" x 3" x 0.25" Al plate heat sink.



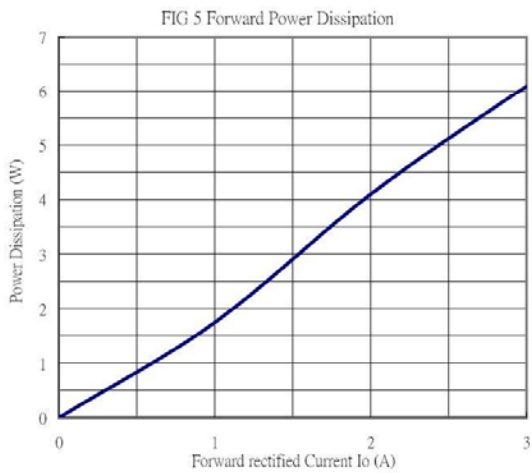
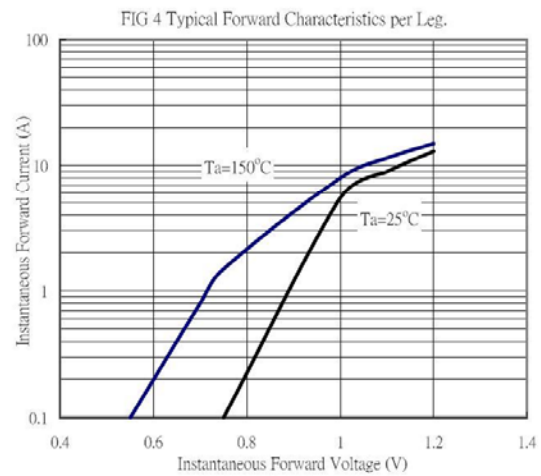
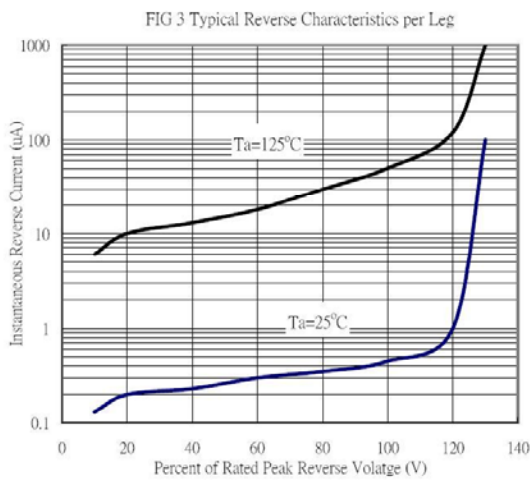
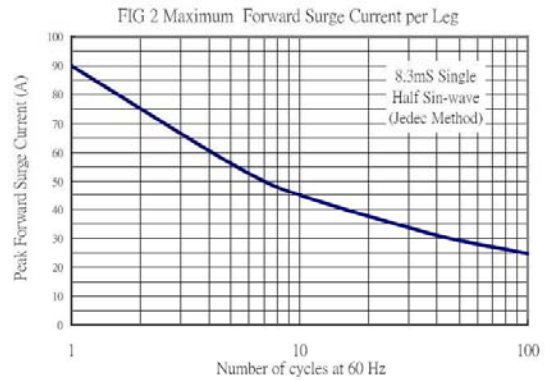
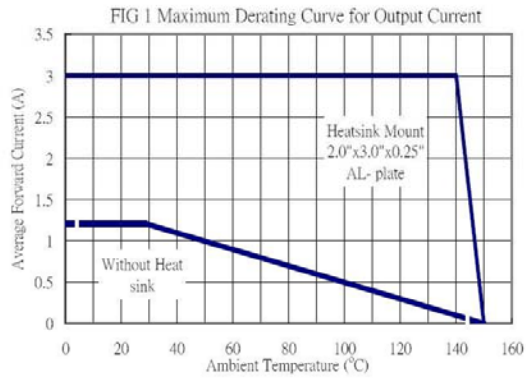
### Dimension in inches and (millimeter)

#### Marking Diagram



U3KB X0 = Specific Device Code  
G = Green Compound  
Y = Year  
WW = Work Week

## Rating and Sharacteristic Curves ( UR3KBX0 )



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