

# UD8KB10 THRU UD8KB100 D3K

### **8.0A GLASS PASSIVATED BRIDGE RECTIFIER**

Reverse Voltage - 100 to 1000 V

Forward Current - 8.0A

#### **FEATURES**

♦High current capability

♦Low forward voltage drop

♦Glass Passivated Chip Junction

♦Low power loss, high efficiency

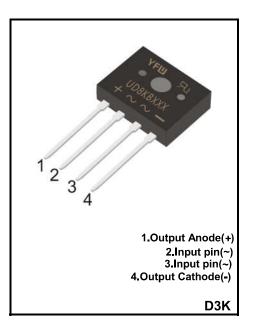
♦Lead free in comply with EU RoHS 2011/65/EU directives

#### **MECHANICAL DATA**

♦Case: D3K

♦Terminals: Solderable per MIL-STD-202E, Method 208C

♦Case:UL-94 Class V-0 recognized Flane Retardant Epoxy



#### **Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

| Parameter   | Symbols                           | UD8KB10    | UD8KB20 | UD8KB40 | UD8KB60          | UD8KB80 | UD8KB100 | Units |
|---|-----------------------------------|------------|---------|---------|------------------|---------|----------|-------|
| Maximum Repetitive Peak Reverse Voltage   | V <sub>RRM</sub>                  | 100        | 200     | 400     | 600              | 800     | 1000     | V     |
| Maximum RMS voltage   | V <sub>RMS</sub>                  | 70         | 140     | 280     | 420              | 560     | 700      | V     |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>                   | 100        | 200     | 400     | 600              | 800     | 1000     | V     |
| Average Rectified Output Current  | I <sub>(AV)</sub>                 | 8          |         |         | A                |         |          |       |
| Peak Forward Surge Current 8.3 ms Single Half<br>Sine-Wave Superimposed on Rated Load<br>(JEDEC method) | I <sub>FSM</sub>                  | 180        |         |         |                  | A       |          |       |
| Forward Voltage per element @IF =6.0A DC  | V <sub>F</sub>                    | 1.0        |         |         | V                |         |          |       |
| Maximum DC Reverse Current @Ta=25°C at Rated DC Blocking Voltage @Ta=125°C                              | I <sub>R</sub>                    | 5.0<br>500 |         |         |                  | μΑ      |          |       |
| I2t Rating for Fusing(3ms≤t≤8.3ms)  | l <sup>2</sup> t                  | 120        |         |         | A <sup>2</sup> S |         |          |       |
| Typical junction capacitance  | C <sub>j</sub>                    | 56         |         |         |                  | pF      |          |       |
| Maximum Typical Thermal<br>Resistance   | R <sub>0JA</sub>                  | 55         |         |         |                  | °C/W    |          |       |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>stg</sub> | -55 ~ +150 |         |         | °C               |         |          |       |

<sup>(1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V D.C

<sup>(2)</sup> Device mounted on 50mm\*50mm\*1.6mm Cu plate heatsink.



FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

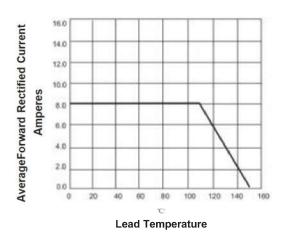


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

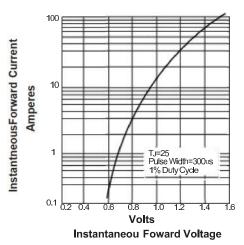
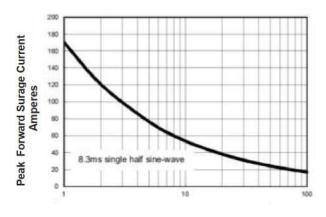
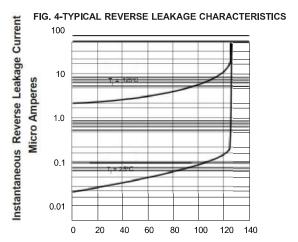


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG



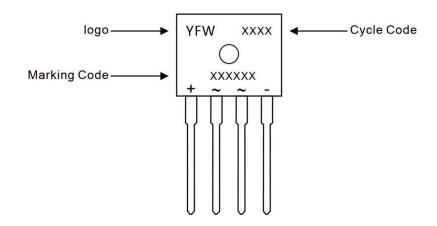
Number of cycles



Percent Of Rated Peak Reverse Voltage(%)



## **Marking Diagram**

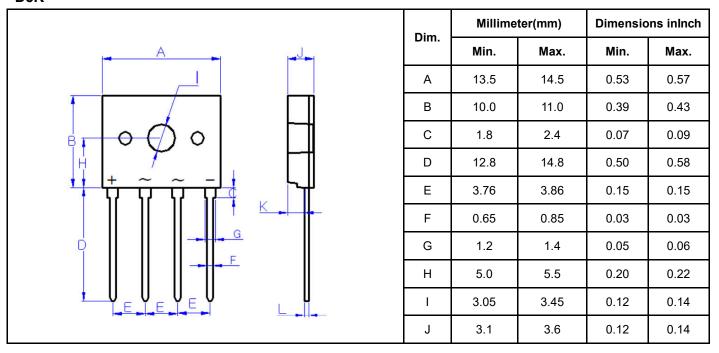


# **Ordering information**

| Package | Packing Description | Packing Quantity          |  |  |
|---------|---------------------|---------------------------|--|--|
| D3K     | bulk                | 500PCS/Box 5000PCS/Carton |  |  |

### **Package Dimensions**

### D<sub>3</sub>K





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