# UG3KB05 THRU UG3KB100

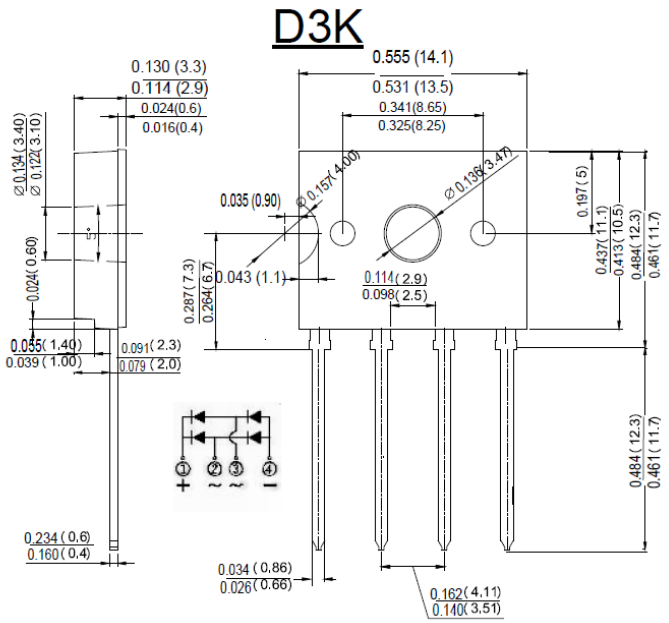
**SINGLE PHASE 3.0AMP GLASS PASSIVATED BRIDGE RECTIFIER**

## Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0

## Mechanical Data

- Case: D3K,molded plastic
- Terminal: Plated leads solderable per MIL-STD 202,Method 208
- Polarity: As Marked on case
- Mounting Position:Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version




Dimiensions in inches and （milimeters）

## Maximum Ratings and Electrical Characteristics

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

| TYPE NUMBER | SYMBOL | UG3K B05 | UG3K B10 | UG3K B20 | UG3K B40 | UG3K B60 | UG3K B80 | UG3K B100 | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | $V_{RRM}$ $V_{RWM}$ $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current Without heat sink @$T_c$=90℃ With heat sink @$T_c$=90 ℃ | $I_{F(AV)}$ | 1.5 3.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 60 | | | | | | | A |
| $I^2t$ Rating for Fusing (t < 8.3ms) | $I^2t$ | 14.94 | | | | | | | $A^2s$ |
| Forward Voltage per element @IF=3.0A | $V_{FM}$ | 1.1 | | | | | | | V |
| Maximum DC reverse current at $T_A$=25℃ rated DC blocking voltage per leg $T_A$=125℃ | $I_R$ | 5.0 500 | | | | | | | uA |
| Typical Juntion Capacitance per leg | $C_J$ | 21 | | | | | | | pF |
| Typical thermal resistance per leg(Note 1) | $R_{\theta JA}$ $R_{\theta JL}$ | 55 15 | | | | | | | ℃/W |
| Operating and Storage Temperature Range | $T_J$,$T_{STG}$ | -55 to +150 | | | | | | | ℃ |

Note:1. Measured at 1.0 MHZ and applied reverse voltage of 4.0VD.C.

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Fig. 1 Output Current Derating Curve

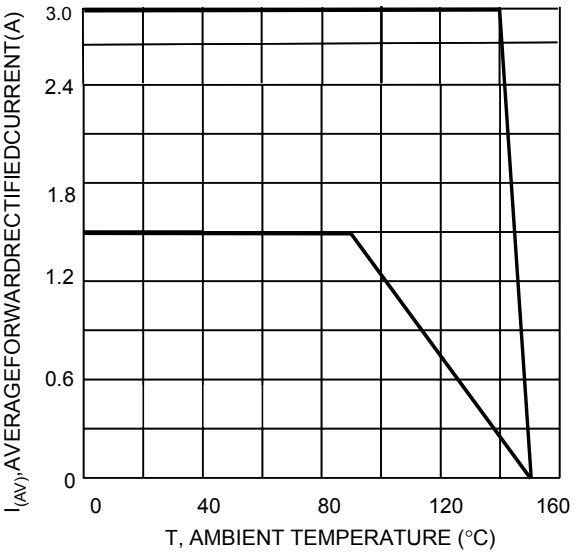



Fig. 2 Typical I Forward Characteristics (per leg)

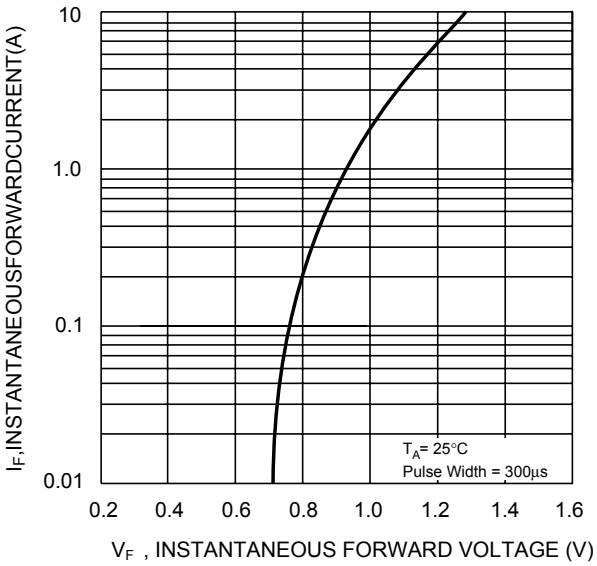



Fig. 3 Maximum Peak Forward Surge Current (per leg)

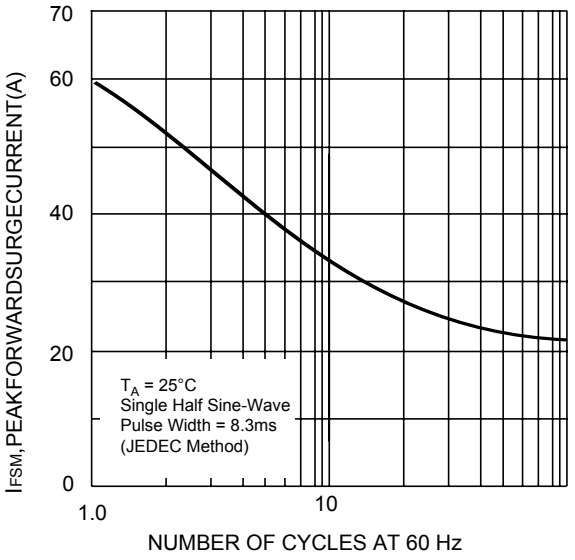



Fig.4 Typical Junction Capacitance Per Diode

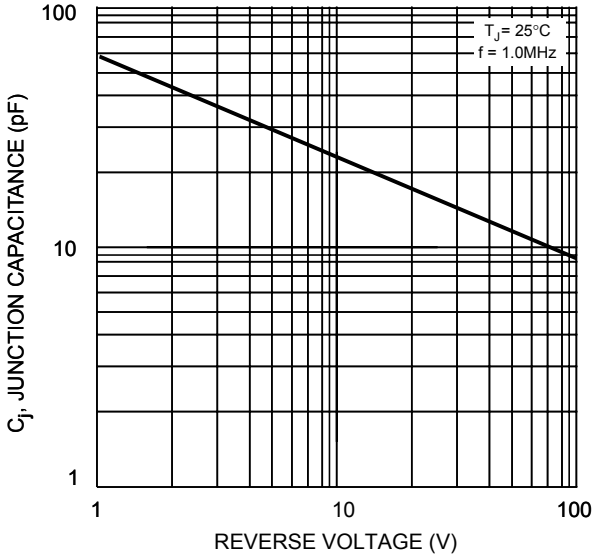
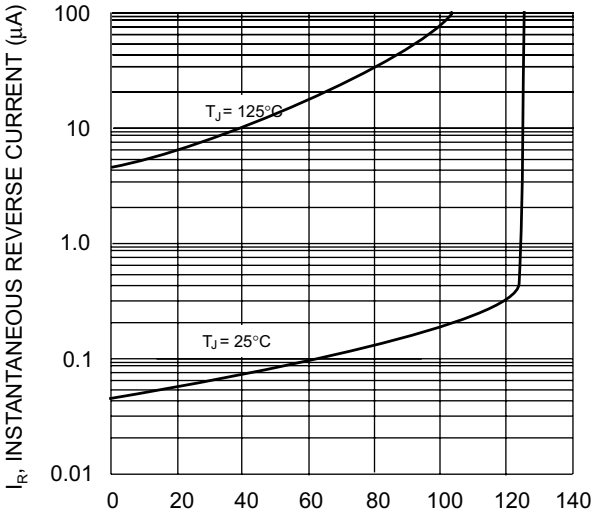



Fig. 5 T ypical Reverse Characteristics (per element)



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