

# UG3KB05 THRU UG3KB100

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 3.0A



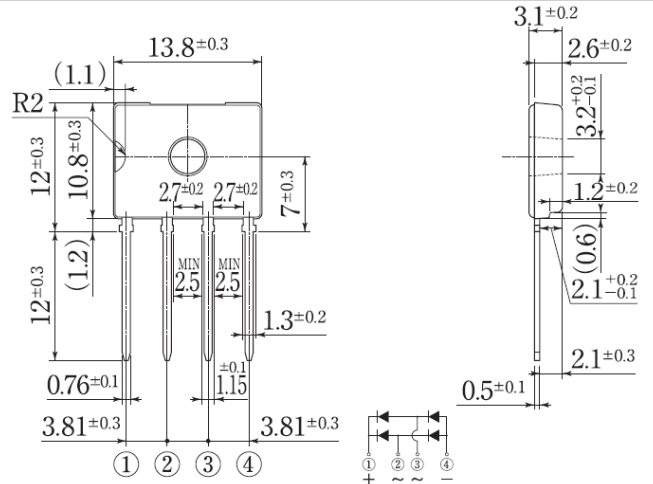
### Features

Glass passivated chip junction  
High case dielectric strength  
High surge current capability  
Ideal for printed circuit board

### Mechanical Data

Terminal: Plated leads solderable per MIL-STD 202E, Method 208C  
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: Polarity symbol marked on body  
Mounting position: any

### D3K



Dimensions in millimeters

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	Symbol	UG3K B05	UG3 KB10	UG3 KB20	UG3 KB40	UG3K B60	UG3 KB80	UG3K B100	units
Maximum repetitive peak reverse voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current T <sub>c</sub> 140°C with heatsink	I <sub>f(av)</sub>	3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>fsm</sub>	90							A
Maximum instantaneous forward voltage drop per leg at 1.5A	V <sub>f</sub>	1.05							V
Rating for fusing (3ms ≤ t < 8.3ms)	I <sup>2</sup> t	35							A <sup>2</sup> Sec
Maximum DC reverse current at rated DC blocking voltage per leg Ta = 25°C Ta = 125°C	I <sub>r</sub>	10.0 500							μA
Thermal resistance without heatsink with heatsink without heatsink	R <sub>th(ja)</sub> R <sub>th(jc)</sub> R <sub>th(jl)</sub>	55 1.5 15							°C/W
Operating junction and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150							°C

Note:

## RATINGS AND CHARACTERISTIC CURVES UG3KB05 THRU UG3KB100

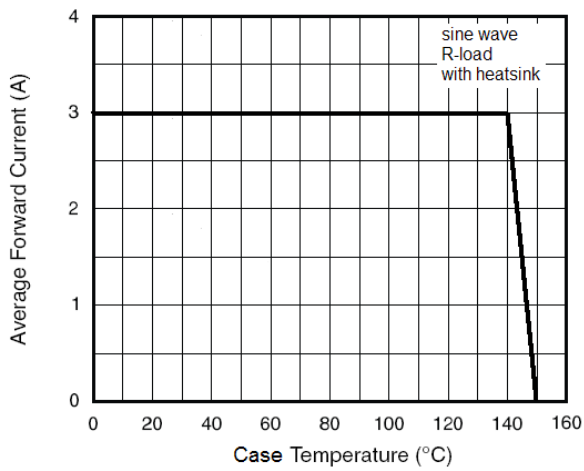


Figure 1. Forward Current Derating Curve

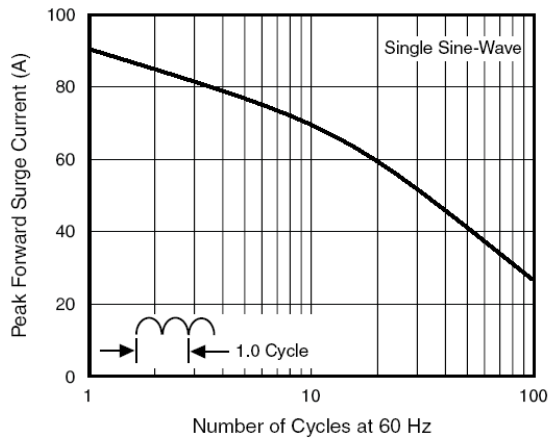


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

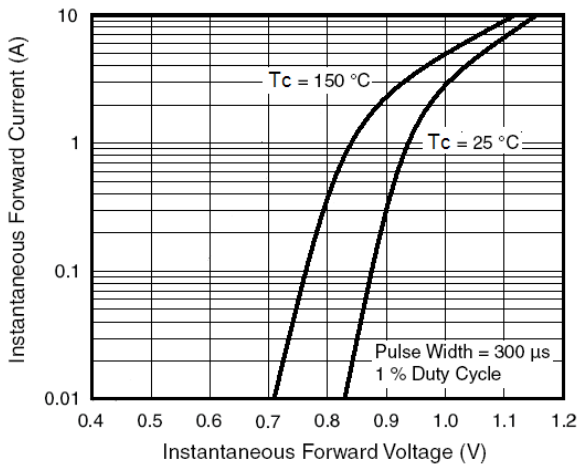


Figure 3. Typical Forward Characteristics Per Diode

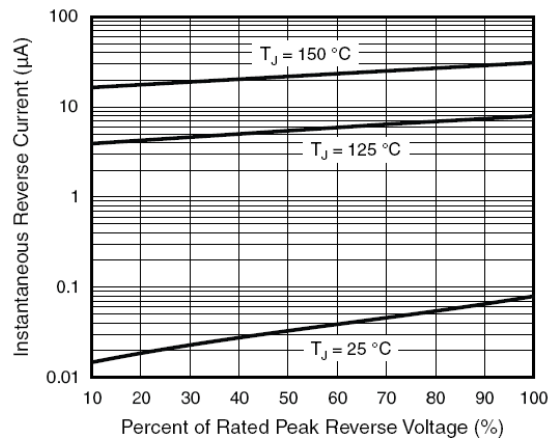


Figure 4. Typical Reverse Leakage Characteristics Per Diode

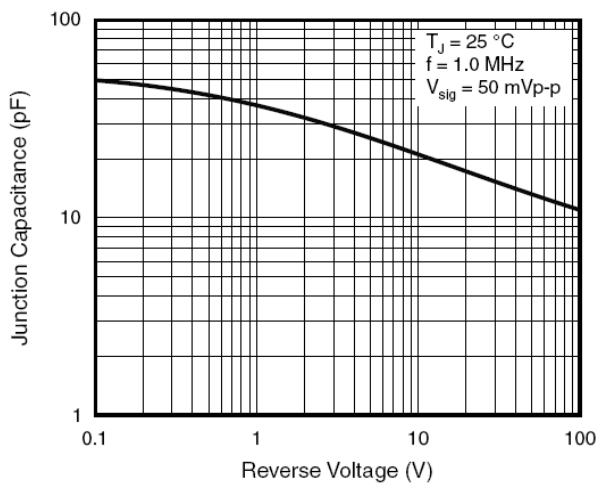


Figure 5. Typical Junction Capacitance Per Diode