

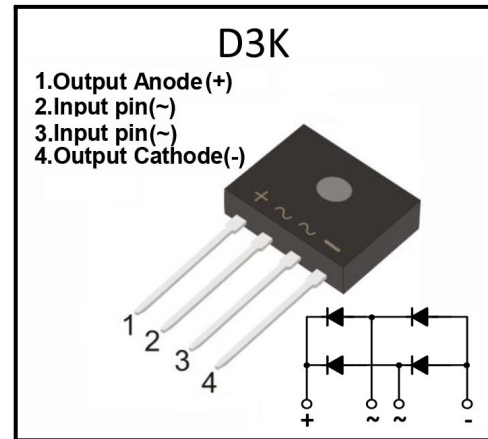
# UG4KB05-UG4KB100/G

Single Phase 4.0Amp Glass passivated Bridge Rectifiers

## Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250 °C/10 seconds at terminals
- The G suffix is uses for photoresist chip, otherwise it is a knife scraping chip

## Mechanical Data



## Description

- Case: Molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbol marking on body
- Mounting Position : Any

## Maximum Ratings And Electrical Characteristics (@T<sub>A</sub>=25°C unless otherwise noted)

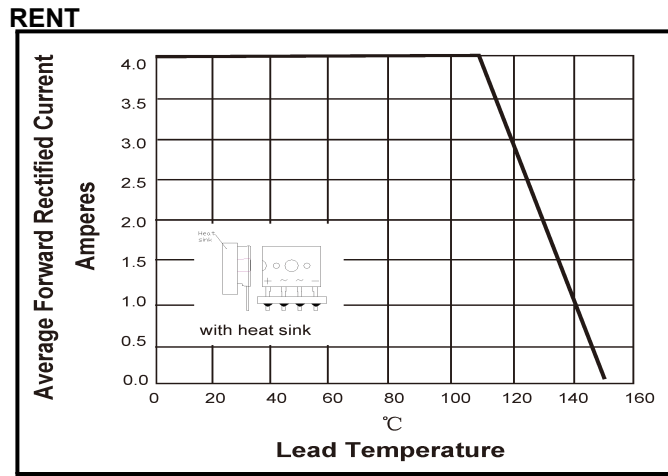
Symbol	Parameter	UG4K	UG4K	UG4K	UG4K	UG4K	UG4K	UG4K	Unit
		B05	B10	B20	B40	B60	B80	B100	
V <sub>RRM</sub>	Maximum repetitive peak reverse voltage	50	100	200	400	600	800	1000	V
V <sub>RMS</sub>	Maximum RMS voltage	35	70	140	280	420	560	700	V
V <sub>DC</sub>	Maximum DC blocking voltage	50	100	200	400	600	800	1000	V
I <sub>AV</sub>	Maximum average forward rectified current with heatsink	4.0							A
I <sub>FSM</sub>	Peak forward surge current, 8.3ms single half sine-wave	120.0							A
I <sub>F</sub> <sup>2</sup>	Rating for fusing (t=8.3ms, T <sub>A</sub> =25°C)	59.76							A <sub>S</sub> <sup>2</sup>
V <sub>F</sub>	Maximum forward voltage at 4.0A	1.10							V
I <sub>R</sub>	Maximum DC reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =125°C	5.0							uA
		500							
C <sub>J</sub>	Typical junction capacitance (Note 1)	38.0							pF
R <sub>qJA</sub>	Typical thermal resistance	55.0							°C/W
T <sub>J</sub> T <sub>STG</sub>	Operating junction ,storage temperature range	-55 to +150							°C

Note:(1)Measured at 1MHz and applied reverse voltage of 4.0V D.C.

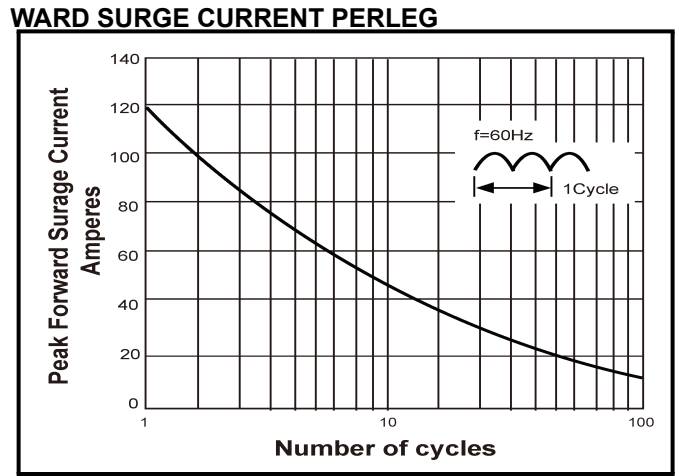


**Ratings And Characteristic Curves**

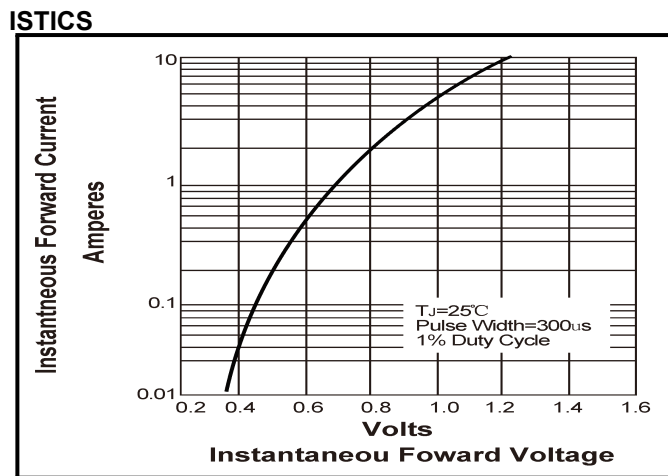
**Figure 1:DERATING CURVE OUTPUT RECTIFIED CURRENT**



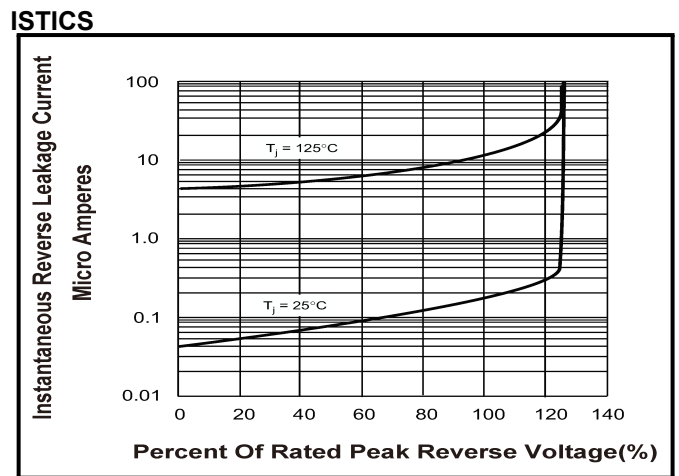
**Figure 2:MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG**



**Figure 3:TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**Figure 4:TYPICAL REVERSE LEAKAGE CHARACTERISTICS**

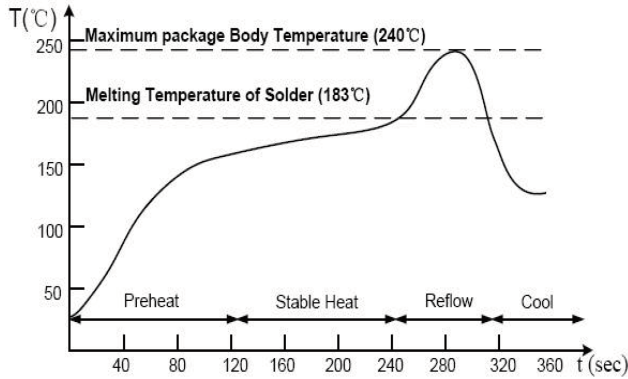




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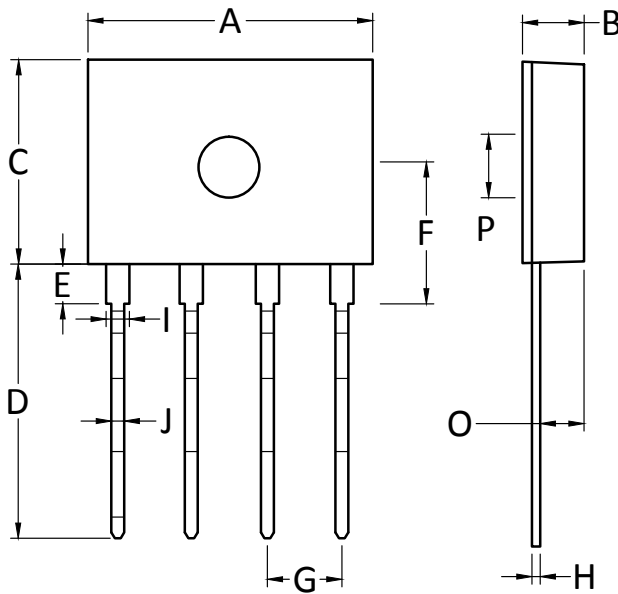
### Suggested Soldering Temperature Profile



Note:

- (1) Recommended reflow methods: IR , vapor phase oven, hot air oven, wave solder.
- (2) The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- (3) Devices can be cleaned using standard industry methods and solvents.
- (4) If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

### Outline Drawing -D3K



SYMBOL	MILLIMETER	
	MIN.	MAX.
A	14.2	14.7
B	3.30	3.60
C	10.2	10.6
D	13.8	14.4
E	1.8	2.2
F	6.65	7.25
G	3.71	3.91
H	0.3	0.55
I	1.22	1.42
J	0.76	0.86
O	1.8	2.4
P	3.0Φ	3.4Φ



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