



# UG6KB05-UG6KB100

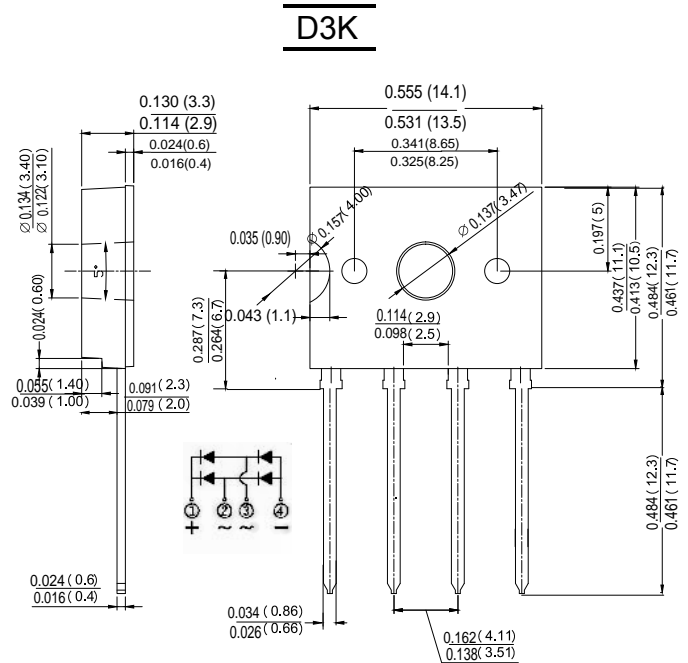
## BRIDGE RECTIFIERS

### Features

- Glass passivated die construction
- High surge current capability
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- 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



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	UG6KB 05	UG6KB 10	UG6KB 20	UG6KB 40	UG6KB 60	UG6KB 80	UG6KB 100	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average forward output rectified current	I (AV)	6.0							A
Peak forward surge current 8.3ms single sine-wave superimposed on rated load (JEDEC Method)	IFSM	150							A
Maximum instantaneous forward voltage drop per diode @6.0A	VF	1.1							V
Maximum DC reverse current at TA=25°C rated DC blocking voltage per leg TA=125°C	IR	5.0 500							uA
Typical thermal resistance per leg	R θ JA	55							°C/W
	R θ JL	15							
Operating junction temperature range	TJ	-55 to +150							°C
storage temperature range	Tstg	-55 to +150							°C

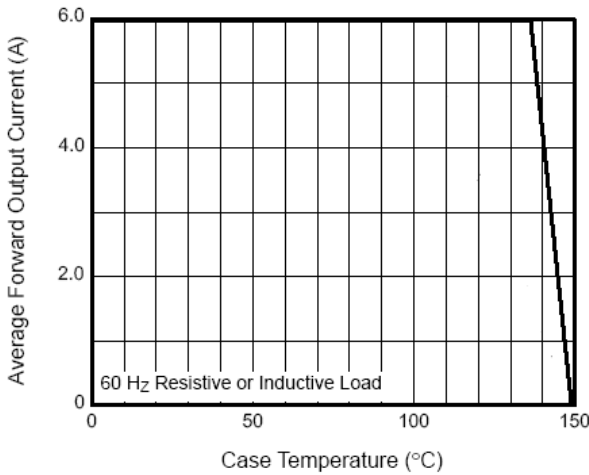
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0VD.C.



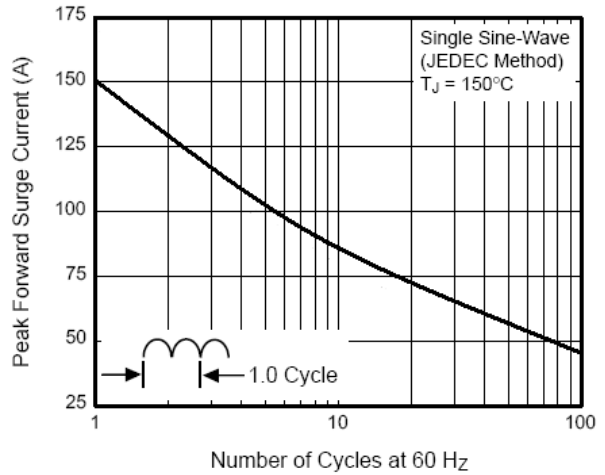
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### Characteristic Curves ( $T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)



**Fig. 1 – Derating Curve  
Output Rectified Current**



**Fig. 2 – Maximum Non-Repetitive Peak  
Forward Surge Current Per Leg**

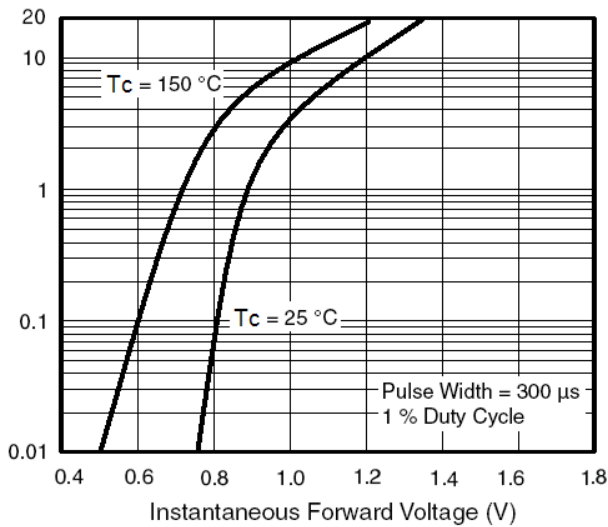


Figure 3. Typical Forward Characteristics Per Diode

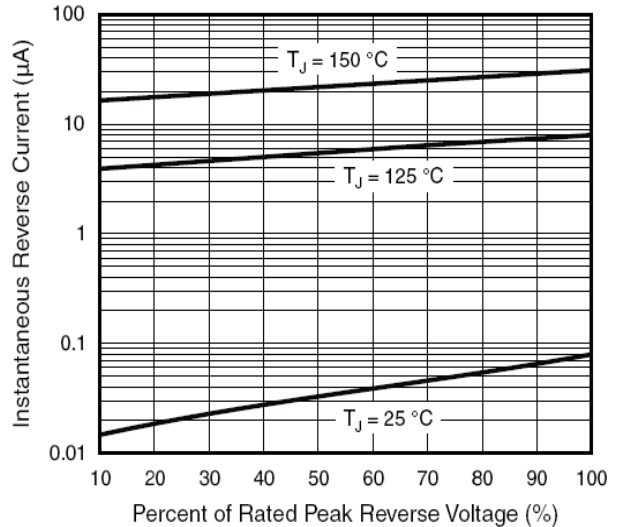


Figure 4. Typical Reverse Leakage Characteristics Per Diode