



UG4KB05 THRU UG4KB100

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIERS

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 4.0 AMPERE

FEATURES

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability

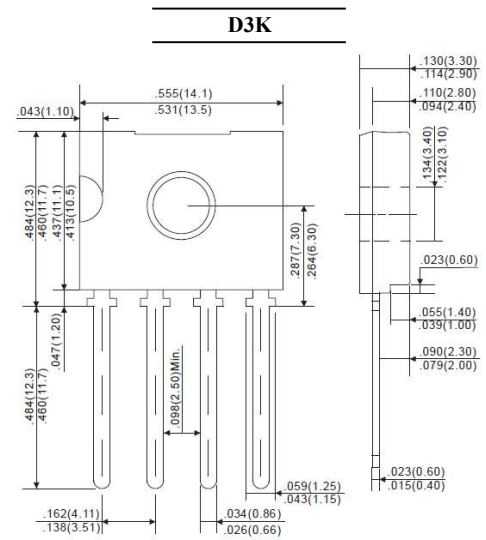
MECHANICAL DATA

Case : D3K,molded plastic

Terminal : Plated leads solderable per
MIL-STD 202,Method 208

Polarity : As Marked on case

Mounting position : Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbols	UG4K B05	UG4K B10	UG4K B20	UG4K B40	UG4K B60	UG4K B80	UG4K B100	Units
Marking Code		UG4K B05	UG4K B10	UG4K B20	UG4K B40	UG4K B60	UG4K B80	UG4K B100	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current with heatsink $T_c=138^\circ\text{C}$	$I_{(AV)}$	4.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	135							Amp
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	41.4							A^2s
Maximum Forward Voltage at 2.0A DC and 25°C	V_F	1.0							Volts
Maximum Reverse Current at $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j=125^\circ\text{C}$	I_R	10							μAmp
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	55							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	1.5							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150							$^\circ\text{C}$

NOTES:

1- Thermal resistance from junction to ambient

2- Thermal resistance from junction to case



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RATINGS AND CHARACTERISTIC CURVES

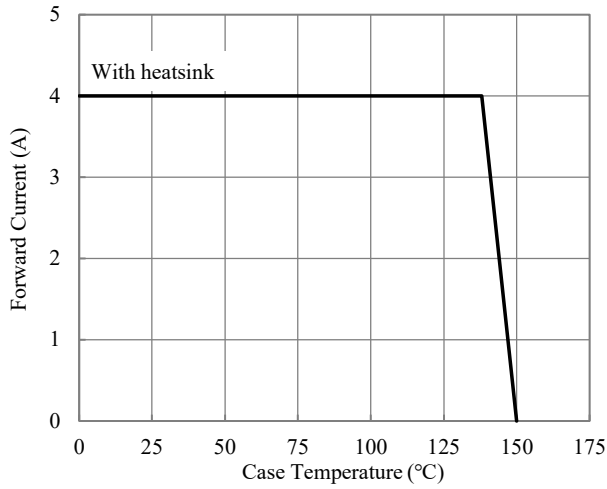


Fig. 1 Forward Current Derating Curve

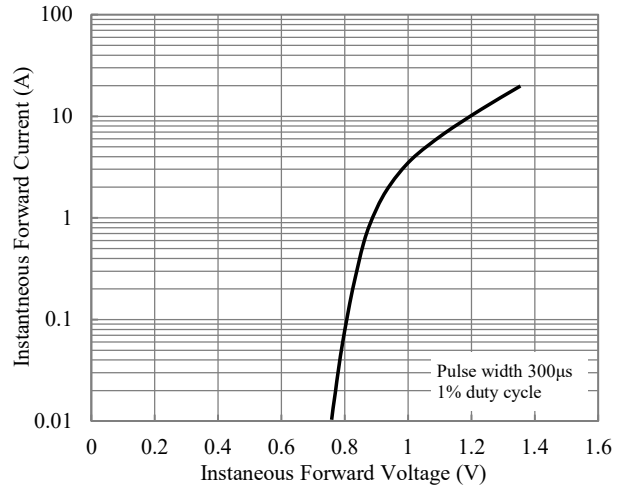


Fig. 2 Typical Instantaneous Forward Characteristics

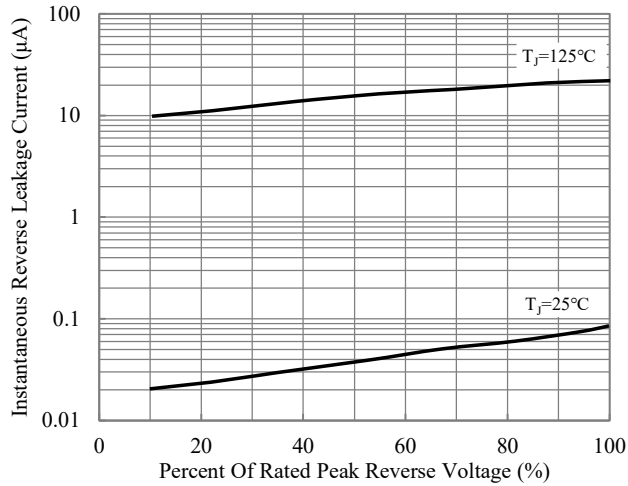


Fig. 3 Typical Reverse Leakage Characteristics

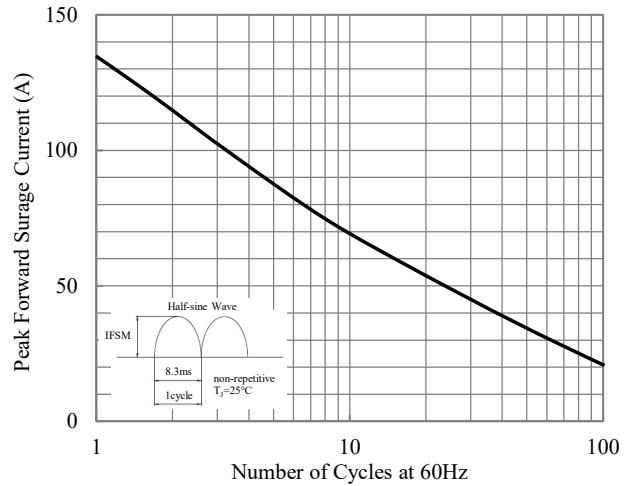


Fig. 4 Maximum Non-Repetitive Peak Forward Surge Current