

# UG4KB05 THRU UG4KB100

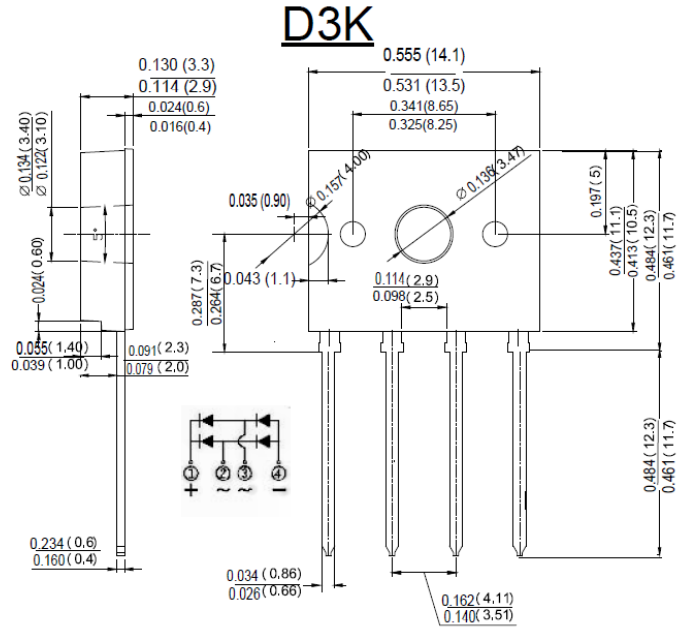
SINGLE PHASE 4.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

## 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



Dimensions in inches and ( millimeters )

## Maximum Ratings and Electrical Characteristics

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

TYPE NUMBER	SYMBOL	UG4K B05	UG4K B10	UG4K B20	UG4K B40	UG4K B60	UG4K B80	UG4K B100	UNIT	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$								V	
	$V_{RWM}$	50	100	200	400	600	800	1000		
	$V_{DC}$									
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Average Rectified Output Current	$I_F(AV)$	Without heat sink @ $T_c=90^\circ C$				2.0				A
		With heat sink @ $T_c=90^\circ C$				4.0				
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$					120				A
$I^2t$ Rating for Fusing (t < 8.3ms)	$I^2t$					59.76				A <sup>2</sup> s
Forward Voltage per element @ $I_F=4.0A$	$V_{FM}$					1.1				V
Maximum DC reverse current at $T_A=25^\circ C$ rated DC blocking voltage per leg $T_A=125^\circ C$	$I_R$					5.0 500				uA
Typical Junction Capacitance per leg	$C_J$					21				pF
Typical thermal resistance per leg(Note 1)	$R_{\theta JA}$					55				°C/W
	$R_{\theta JL}$					15				
Operating and Storage Temperature Range	$T_J, T_{STG}$					-55 to +150				°C

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

Fig. 1 Output Current Derating Curve

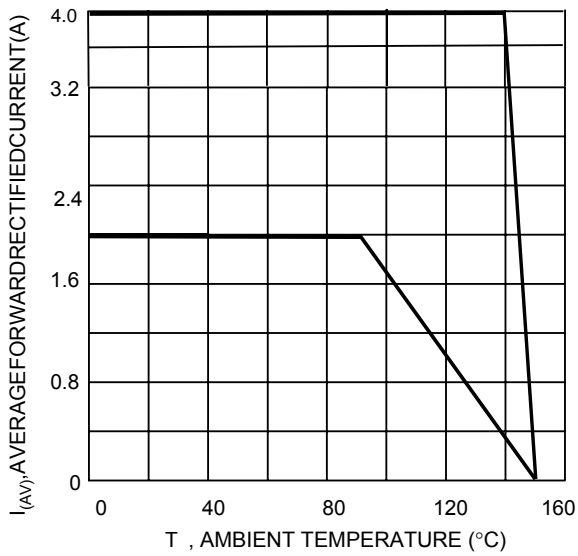


Fig. 2 Typical I Forward Characteristics (per leg)

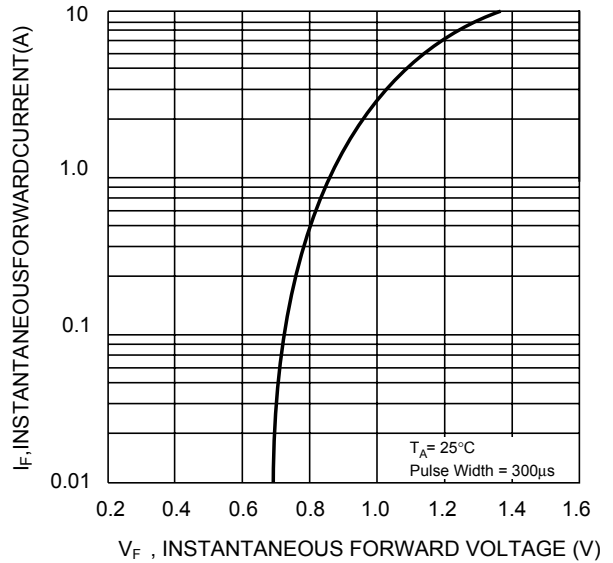


Fig. 3 Maximum Peak Forward Surge Current (per leg)

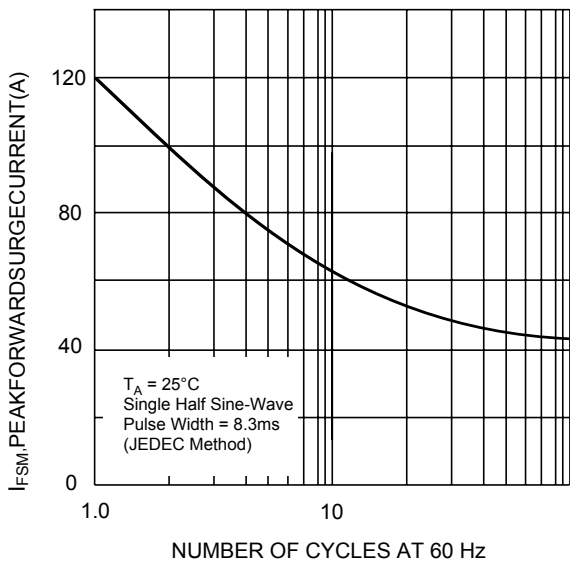


Fig.4 Typical Junction Capacitance Per Diode

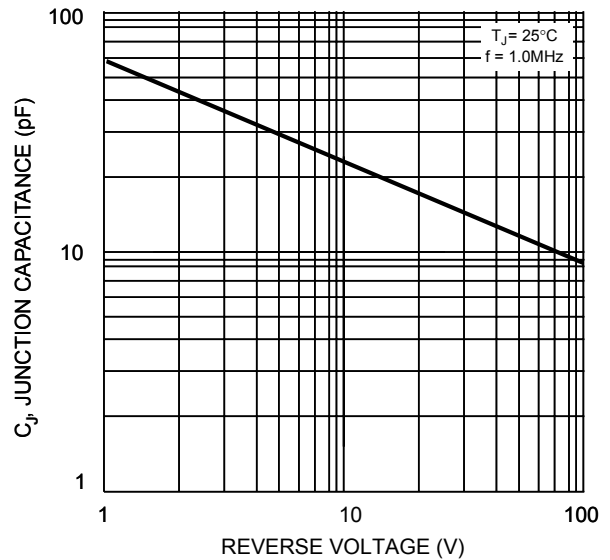
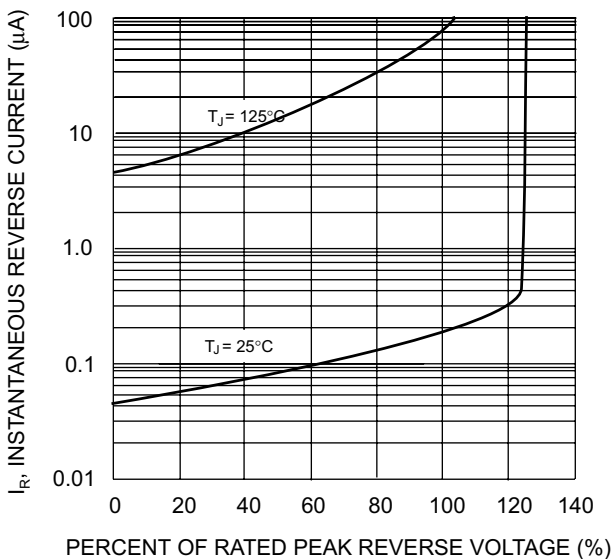


Fig. 5 Typical Reverse Characteristics (per element)



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