



UG4KB05 THRU UG4KB100

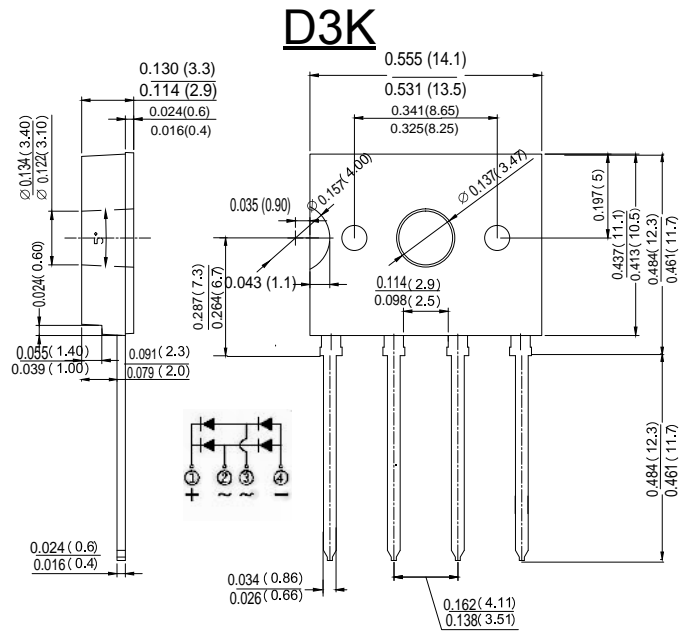
SINGLE PHASE 4.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

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



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 (NOTE2)	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 Without heat sink @ $T_c=90^\circ C$ With heat sink @ $T_c=90^\circ C$	IF(AV)	2.0				4.0				A
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 ² s
Forward Voltage per element @IF=2.0A @IF=4.0A	V_{FM}					1.0 1.1				V
Maximum DC reverse current at $T_J=25^\circ C$ rated DC blocking voltage per leg $T_J=125^\circ C$	I_R					5.0 200				μA
Dielectric Strength	V_{ids}					2500				V
The proposed installation torque Max torque	Tor					5.0 8.0				Kgf.cm
Typical Junction Capacitance (Note 1)	C_J					30				pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$					45				°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.

2. Mounted on glass epoxy PC board with 1.3mm² solder pad. For reference only



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Fig. 1 Output Current Derating Curve

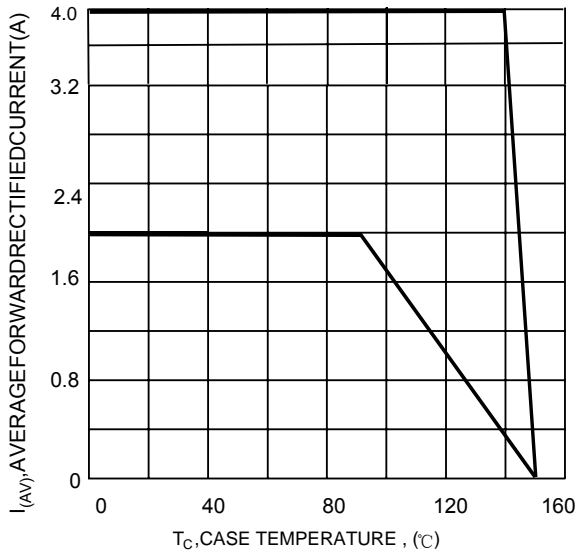


Fig. 2 Typical Forward Characteristics

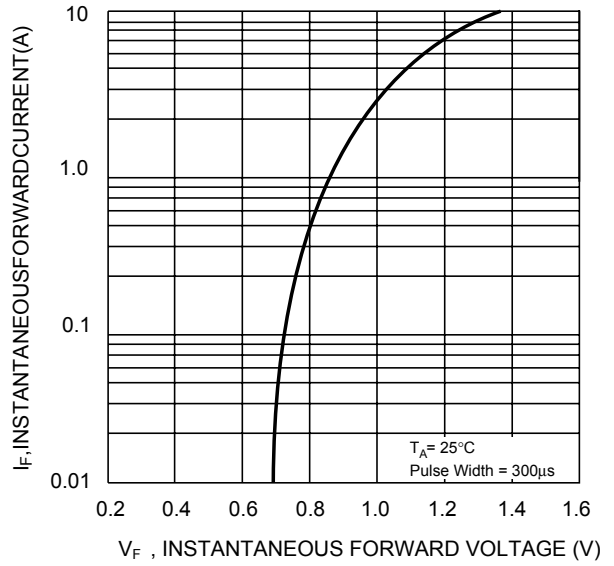


Fig. 3 Maximum Peak Forward Surge Current

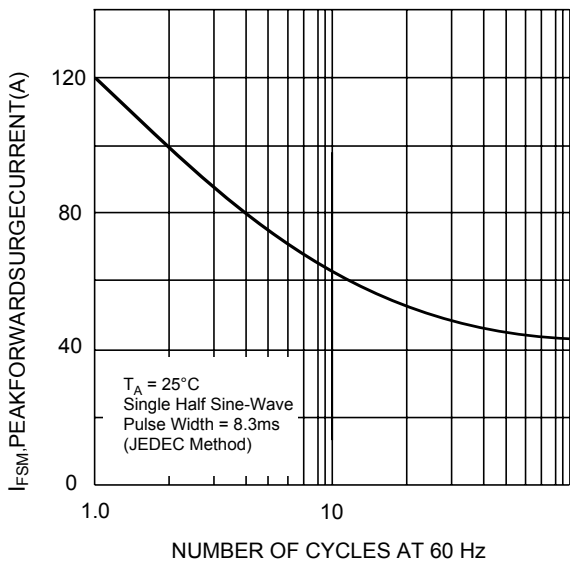


Fig. 4 Typical Junction Capacitance Per Diode

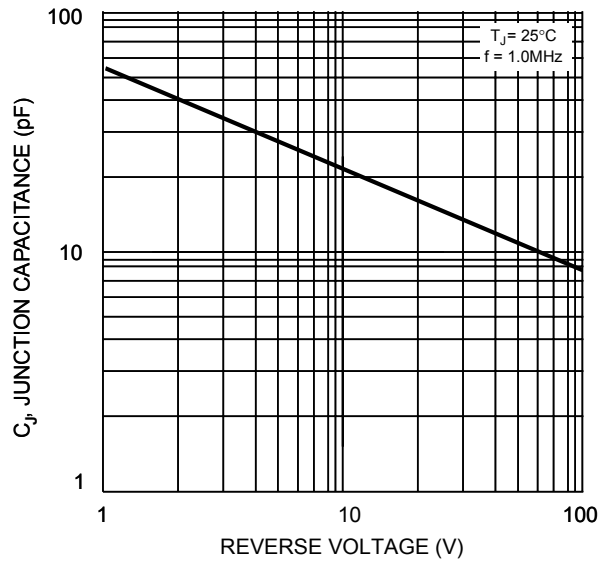
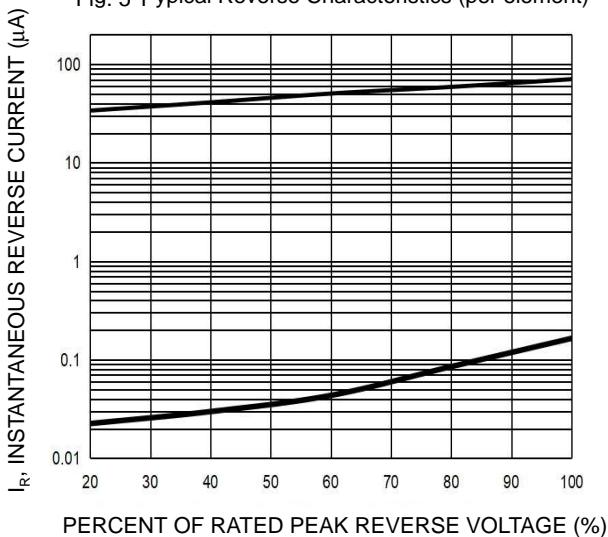


Fig. 5 Typical Reverse Characteristics (per element)





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