Technical Data
Data Sheet N1922, Rev. -

Green Products

UG6KB05 THRU UG6KB100

Single-Phase 6.0A Glass Passivated Bridge Rectifier

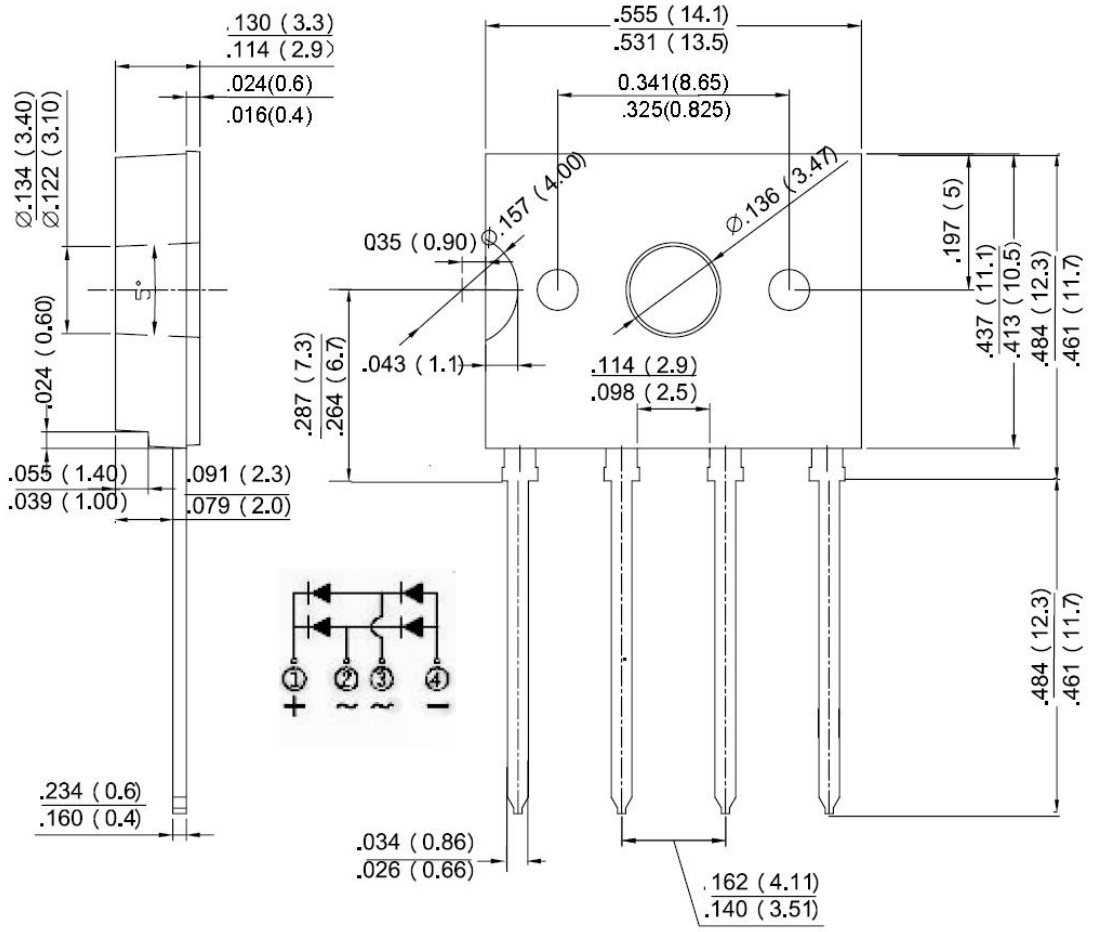
Features:

- **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**
- **Terminals: 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**

Mechanical Dimensions: In Inches/mm



D3K

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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%.

Maximum Ratings:

Type Number	Symbol	UG6K B05	UG6K B10	UG6K B20	UG6K B40	UG6K B60	UG6K B80	UG6K B100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current Without heat sink @T_A = 30°C With heat sink @T_A = 140°C	I_O	3.0 6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A

Electrical Characteristics:

Type Number	Symbol	UG6K B05	UG6K B10	UG6K B20	UG6K B40	UG6K B60	UG6K B80	UG6K B100	Unit
Forward Voltage (per element) @I_F =6.0A	V_F	1.1							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_R	5.0 500							μA
Typical Junction Capacitance(per leg) (Note 1)	C_J	21							pF

Thermal-Mechanical Specifications:

Type Number	Symbol	UG6K B05	UG6K B10	UG6K B20	UG6K B40	UG6K B60	UG6K B80	UG6K B100	Unit
Typical Thermal Resistance (per leg)	$R_{\theta JA}$ $R_{\theta JL}$	55 15							°C/W
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 4.0V D.C.

Fig. 1 Output Current Derating Curve

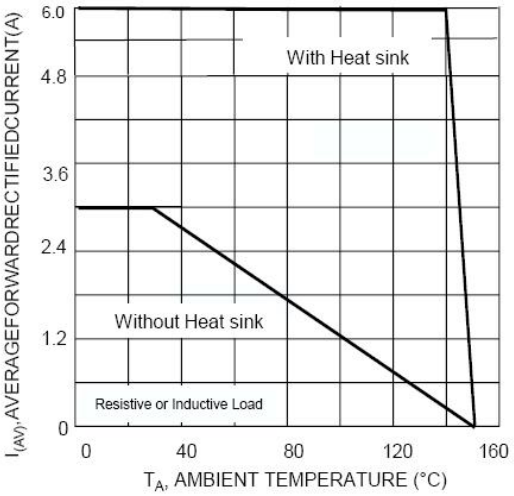


Fig. 2 Typical I Forward Characteristics (per leg)

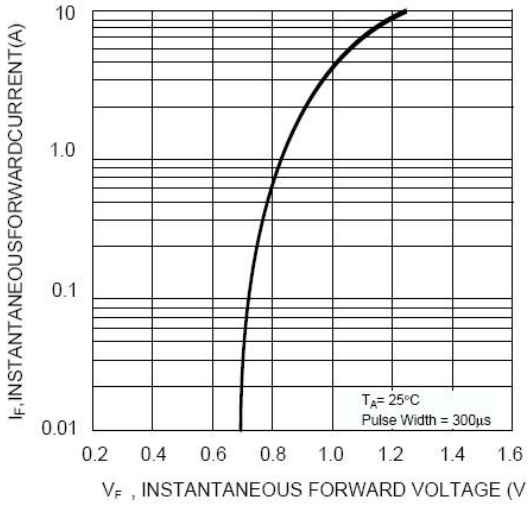


Fig. 3 Maximum Peak Forward Surge Current (per leg)

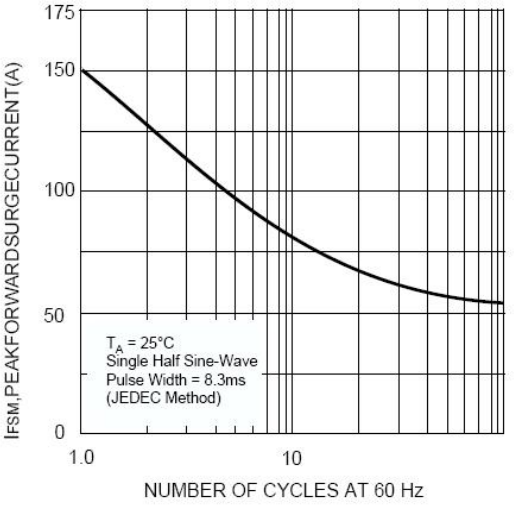


Fig.4 Typical Junction Capacitance Per Diode

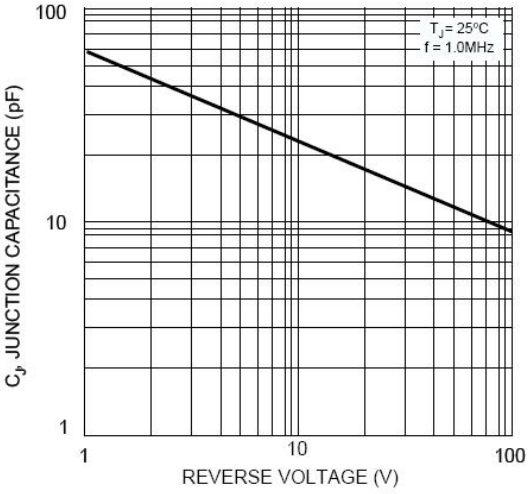
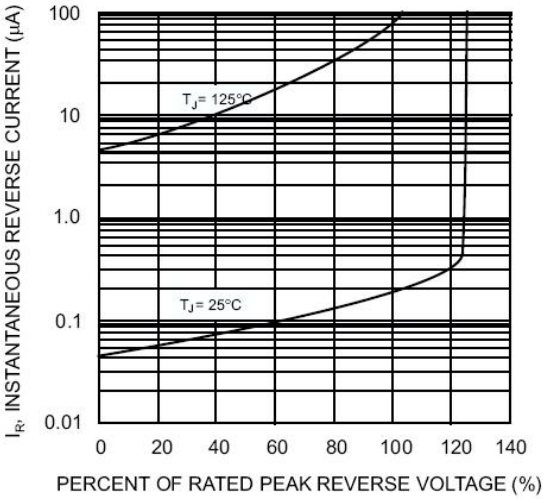


Fig. 5 T ypical Reverse Characteristics (per element)



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