Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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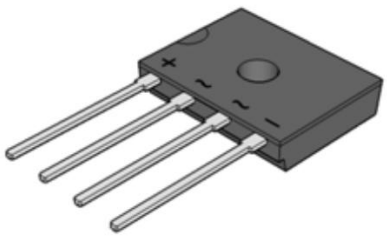
Technical Data
Data Sheet N1922, Rev. A

UG6KB05 THRU UG6KB100

Single-Phase 6.0A Glass Passivated Bridge Rectifier

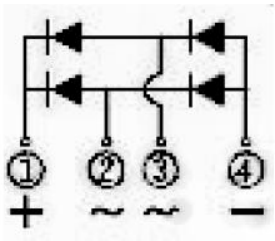


D3K

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
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: D3K, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings: @T_A=25°C unless otherwise specified

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

Type Number	Symbol	UG6K B05	UG6K B10	UG6K B20	UG6K B40	UG6K B60	UG6K B80	UG6K B100	Units
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

UG6KB05 THRU UG6KB100

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RoHS

Electrical Characteristics:

Type Number	Symbol	UG6K B05	UG6K B10	UG6K B20	UG6K B40	UG6K B60	UG6K B80	UG6K B100	Units
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

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications:

Type Number	Symbol	UG6K B05	UG6K B10	UG6K B20	UG6K B40	UG6K B60	UG6K B80	UG6K B100	Units
Typical Thermal Resistance (per leg)(Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	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.
2. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

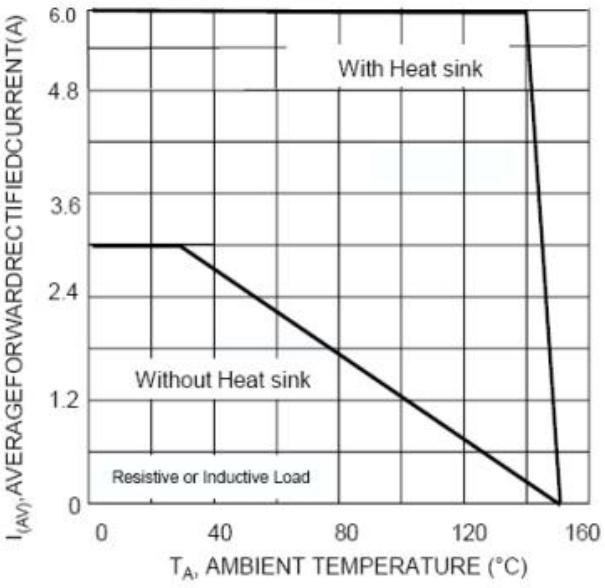
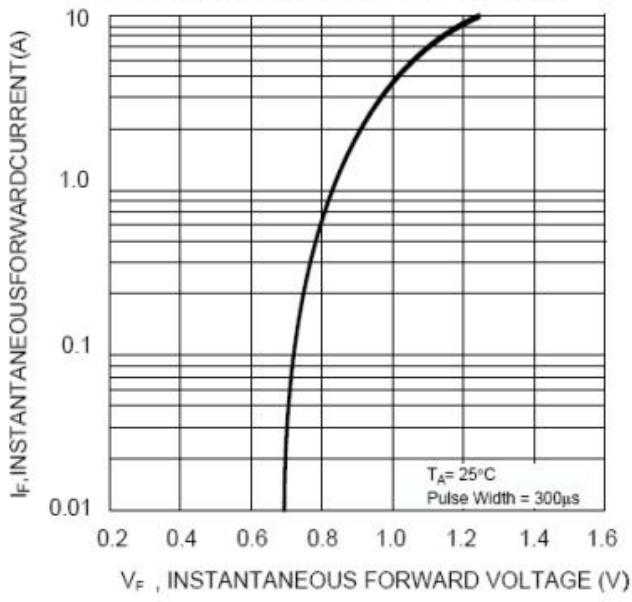


Fig. 2 Typical I Forward Characteristics (per leg)



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

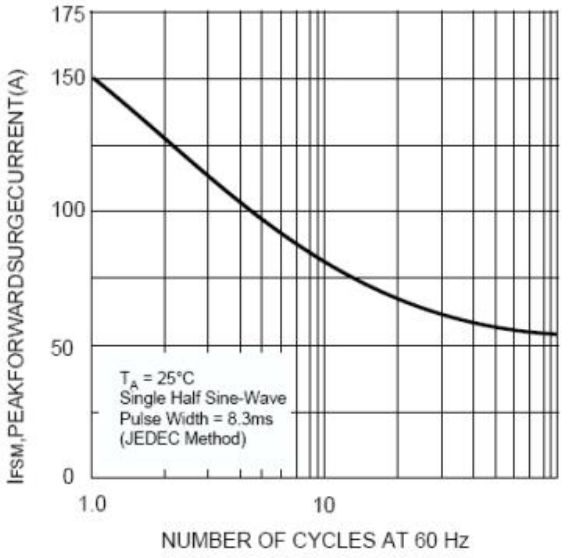


Fig.4 Typical Junction Capacitance Per Diode

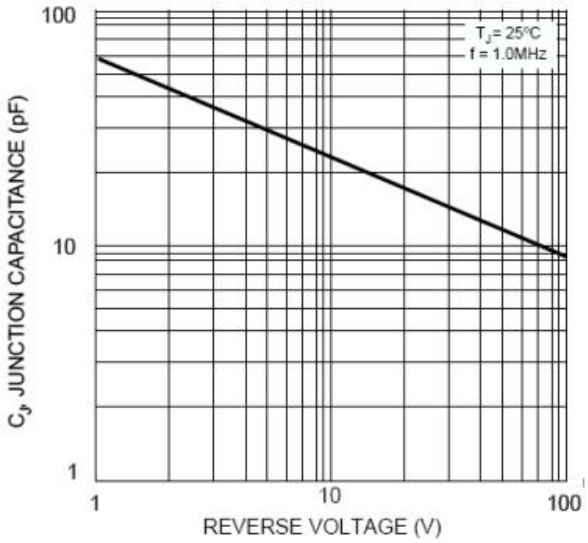
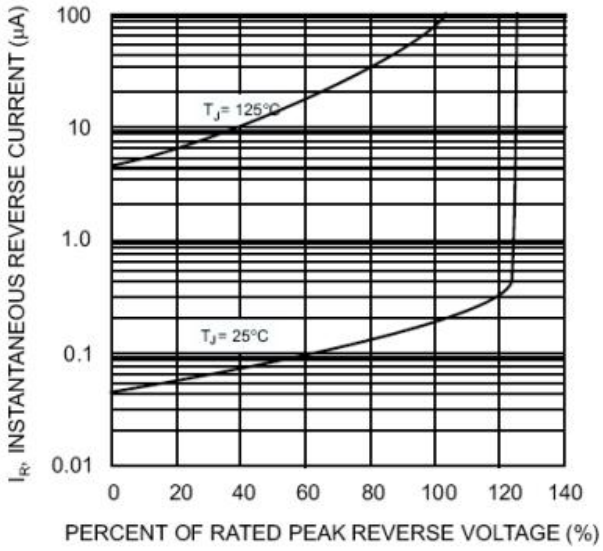


Fig. 5 T ypical Reverse Characteristics (per element)

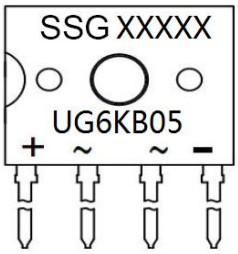


Ordering Information

Device	Package	Plating	Shipping
UG6KB05 THRU UG6KB100	D3K(Pb-Free)	Pure Sn	37pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



Where XXXXX is YYWWL

SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number
UG6KB05	= Type Number

Cautions: Molding resin
Epoxy resin UL:94V-0

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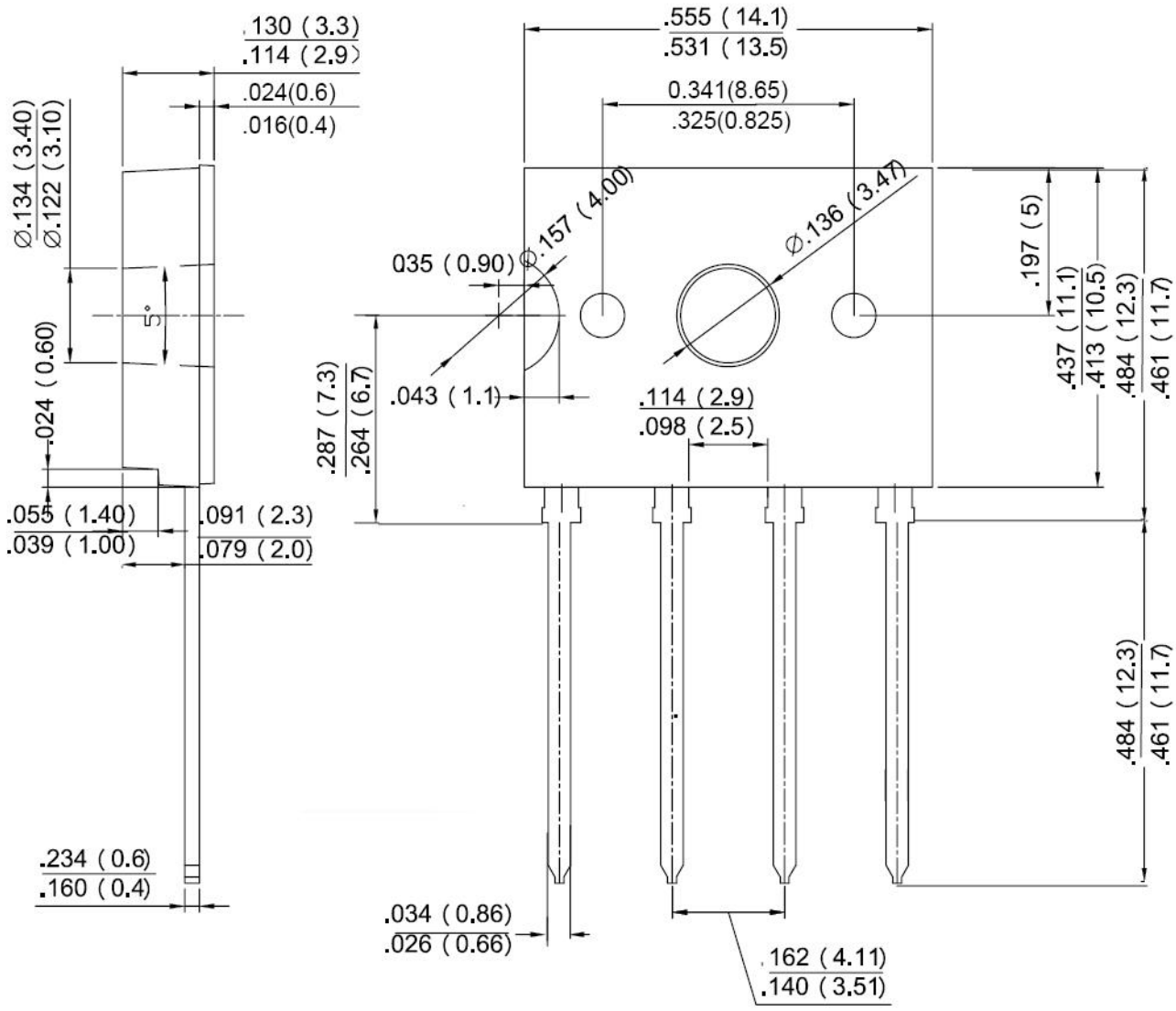
Mechanical Dimensions D3K (Inches/Millimeters)



Technical Data
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