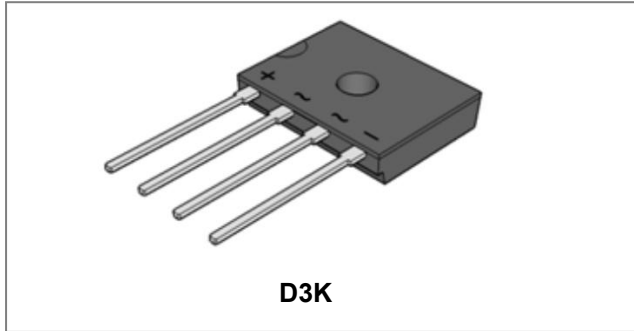


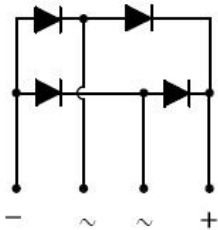
UG3KB05G THRU UG3KB100G
Single-Phase 3.0A Glass Passivated Bridge Rectifier



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
- 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
- Marking: Type Number
- 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	UG3K B05G	UG3K B10G	UG3K B20G	UG3K B40G	UG3K B60G	UG3K B80G	UG3K B100G	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	1.5 3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80							A

Electrical Characteristics:

Type Number	Symbol	UG3K B05G	UG3K B10G	UG3K B20G	UG3K B40G	UG3K B60G	UG3K B80G	UG3K B100G	Unit	
Forward Voltage (per element) @ $I_F = 3.0A$	V_F					1.1				V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 125^\circ C$	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	UG3K B05G	UG3K B10G	UG3K B20G	UG3K B40G	UG3K B60G	UG3K B80G	UG3K B100G	Unit	
Typical Thermal Resistance (per leg)	$R_{\theta JA}$ $R_{\theta JL}$					55 15				$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}					-55 to +150				$^\circ C$

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

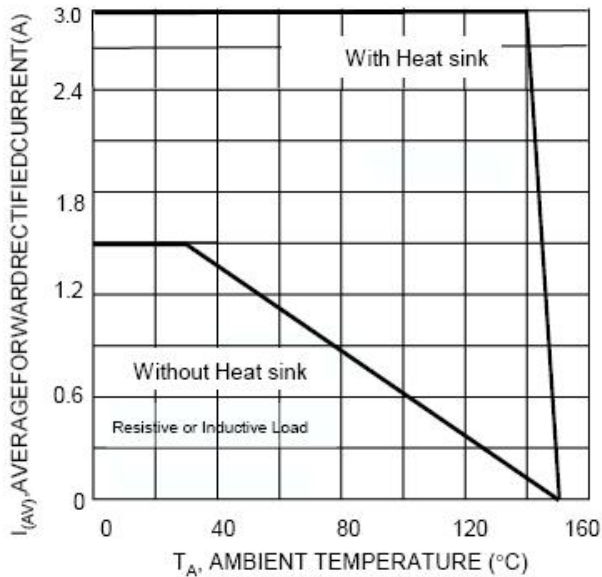


Fig. 2 Typical I Forward Characteristics (per leg)

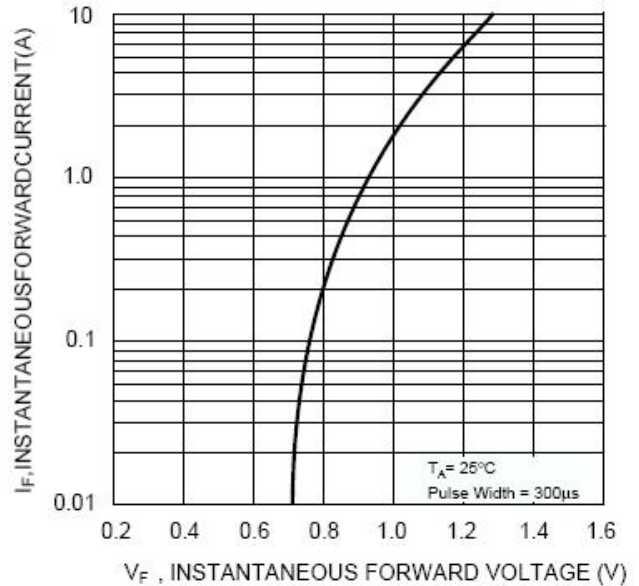


Fig. 3 Maximum Peak Forward Surge Current (per leg)

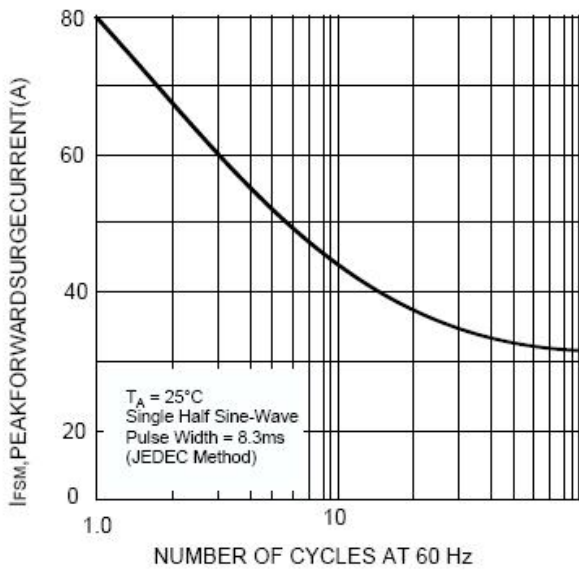


Fig.4 Typical Junction Capacitance Per Diode

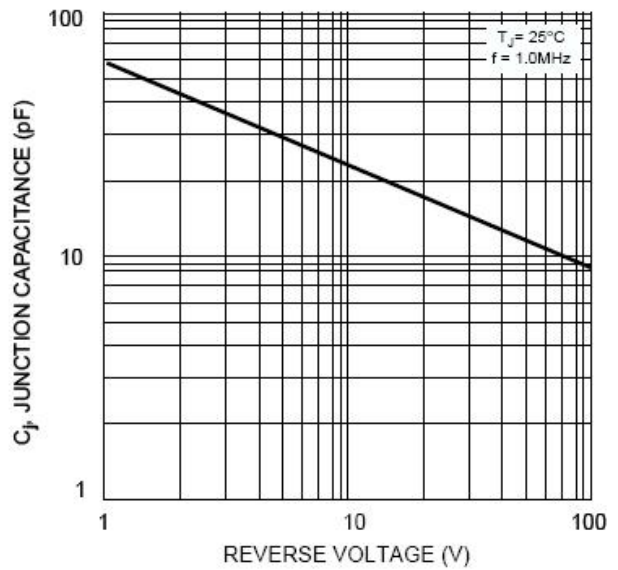
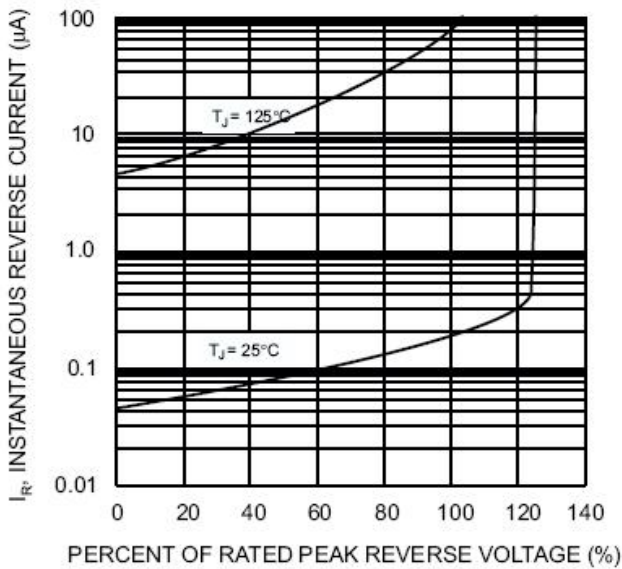


Fig. 5 Typical Reverse Characteristics (per element)

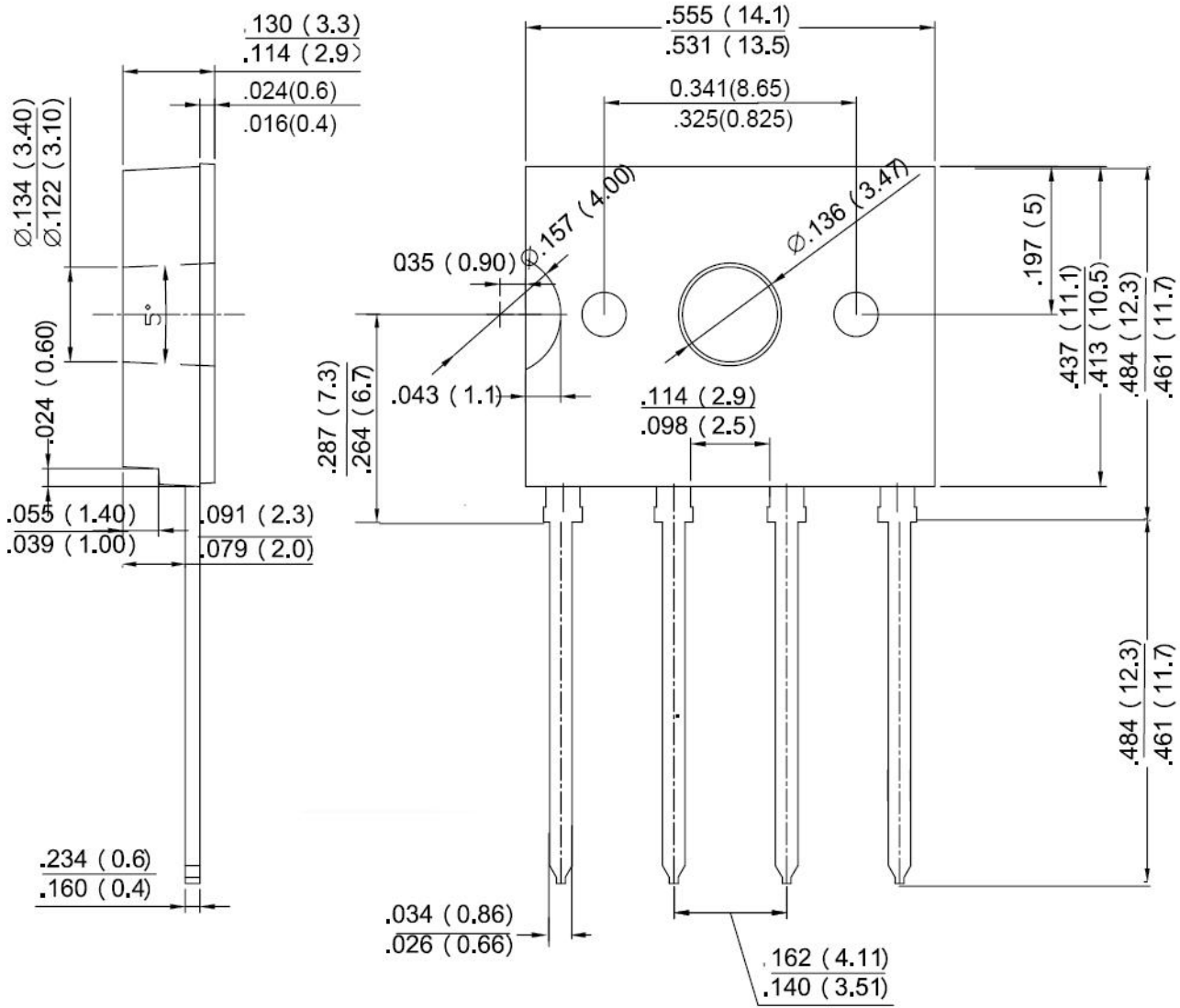


Ordering Information:

Device	Package	Shipping
UG3KB05G THRU UG3KB100G	D3K(Pb-Free)	35pcs / tube

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

Mechanical Dimensions D3K (Inches/Millimeters)



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