



# UG3KB05 THRU UG3KB100

## SILICON BRIDGE RECTIFIERS

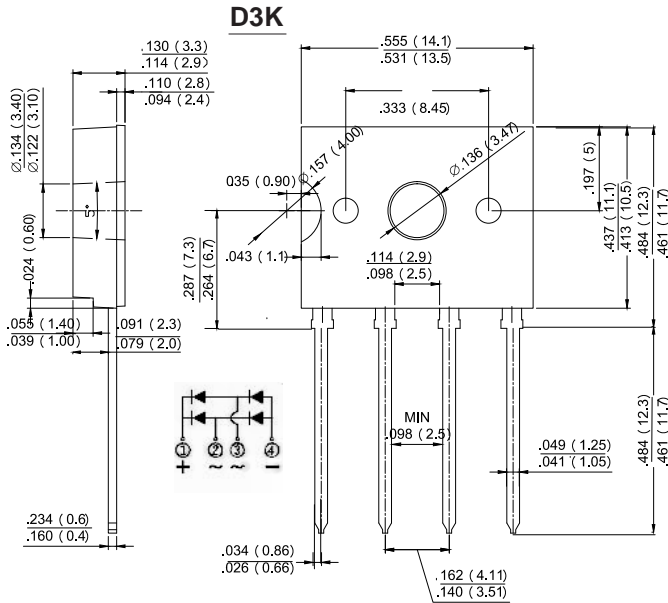
Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

### 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 body  
**Terminals:** Plated leads solderable per MIL-STD-202, Method 208  
**Polarity:** As marked on case  
**Mounting Position:** Any  
**Marking :** Type number



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	UG3K B05	UG3K B10	UG3K B20	UG3K B40	UG3K B60	UG3K B80	UG3K B100	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	VOLTS
Maximum average forward output rectified current at $T_A=40^\circ\text{C}$ (Note 1)	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	60.0							Amps
Forward voltage per element @ $I_F=3.0\text{A}$	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^\circ\text{C}$							$\mu\text{A}$
		$T_A=125^\circ\text{C}$							mA
Typical junction capacitance per leg	$C_J$	21							pF
Typical Thermal Resistance per leg(Note 2)	$R_{\theta JA}$	55							°C/W
	$R_{\theta JL}$	15							
Operating junction temperature range	$T_J, T_{STG}$	-55 to +150							°C

Note:1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..



# RATINGS AND CHARACTERISTIC CURVES UG3KB05 THRU UG3KB100

Fig. 1 Output Current Derating Curve

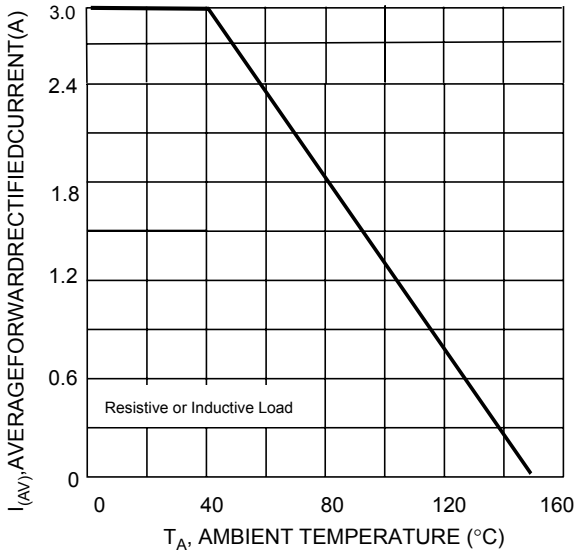


Fig. 2 Typical I Forward Characteristics (per leg)

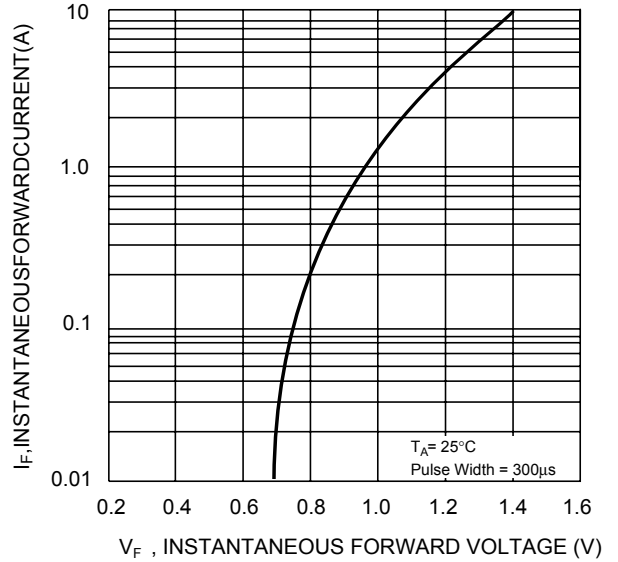


Fig. 3 Maximum Peak Forward Surge Current (per leg)

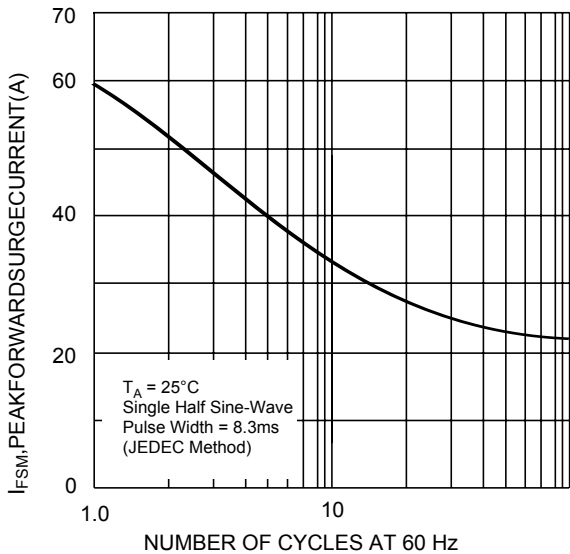
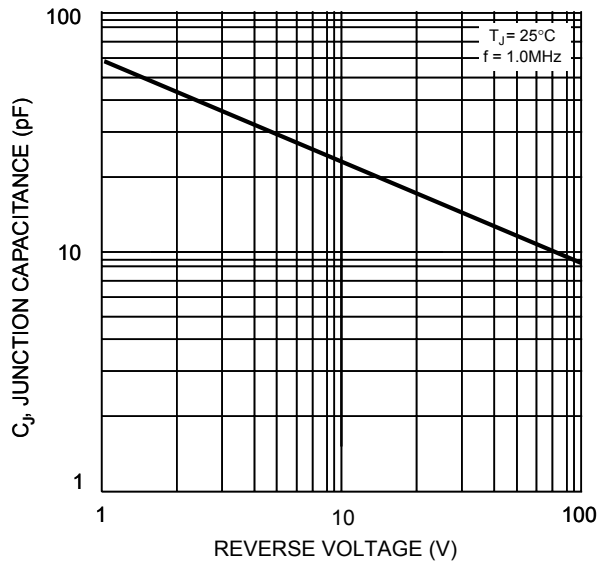


Fig. 4 Typical Junction Capacitance Per Diode



The cruve graph is for reference only, can't be the basis for judgment( )!

