



UG4KB05 THRU UG4KB100

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

SILICON BRIDGE RECTIFIERS

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-O

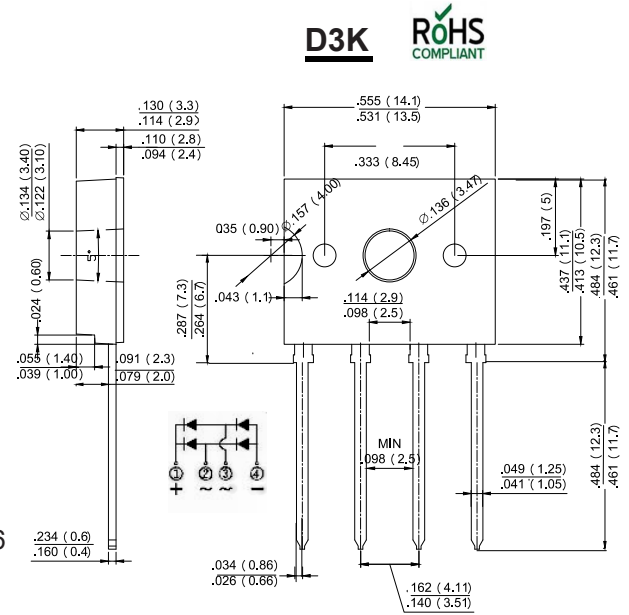
Mechanical Data

Case : D3K Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any



Dimensions in inches and (millimeters)

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%.

Parameter	SYMBOLS	MDD	MDD	MDD	MDD	MDD	MDD	MDD	UNITS
		UG4KB05	UG4KB10	UG4KB20	UG4KB40	UG4KB60	UG4KB80	UG4KB100	
Marking Code									
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward output rectified current at $T_A=40^\circ\text{C}$	$I_{(AV)}$	4.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80.0							A
Maximum instantaneous forward voltage drop per bridge element at 3.0A	V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A=25^\circ\text{C}$							μA
		$T_A=100^\circ\text{C}$							mA
Typical Junction Capacitance	C_J	21							pF
Typical Thermal Resistance	$R_{\theta JA}$	55							$^\circ\text{C/W}$
	$R_{\theta JL}$	15							
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$
storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

Note:1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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Ratings And Characteristic Curves

Fig. 1 Output Current Derating Curve

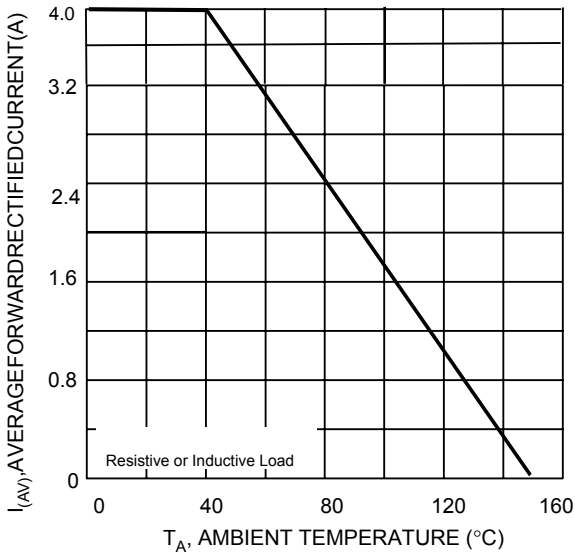


Fig. 2 Typical I Forward Characteristics (per leg)

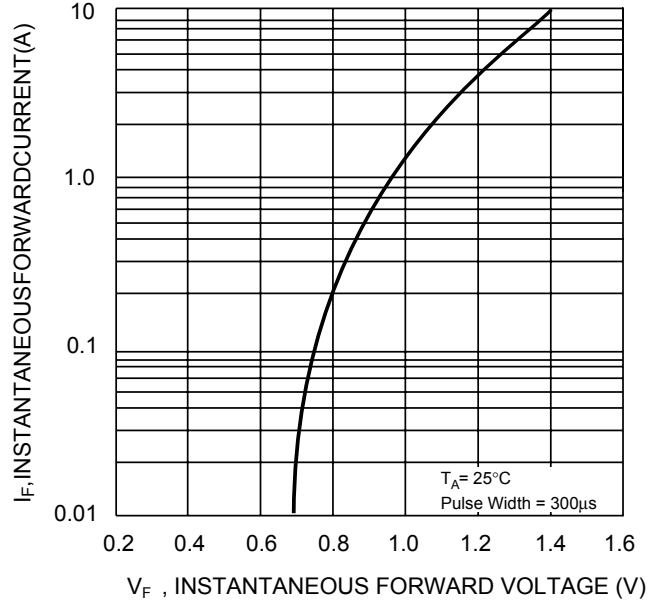


Fig. 3 Maximum Peak Forward Surge Current (per leg)

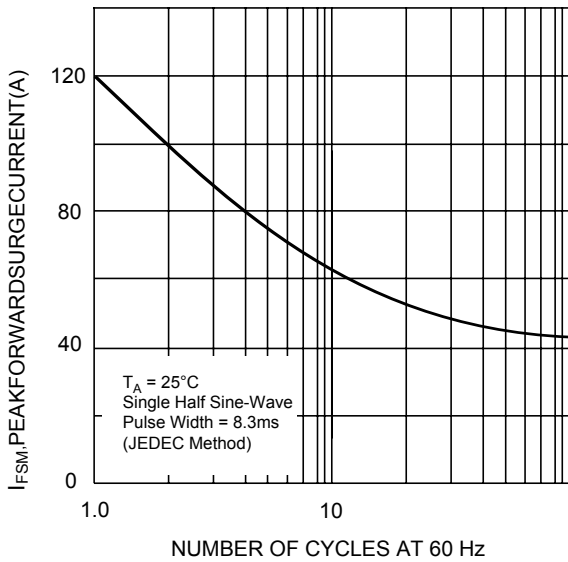
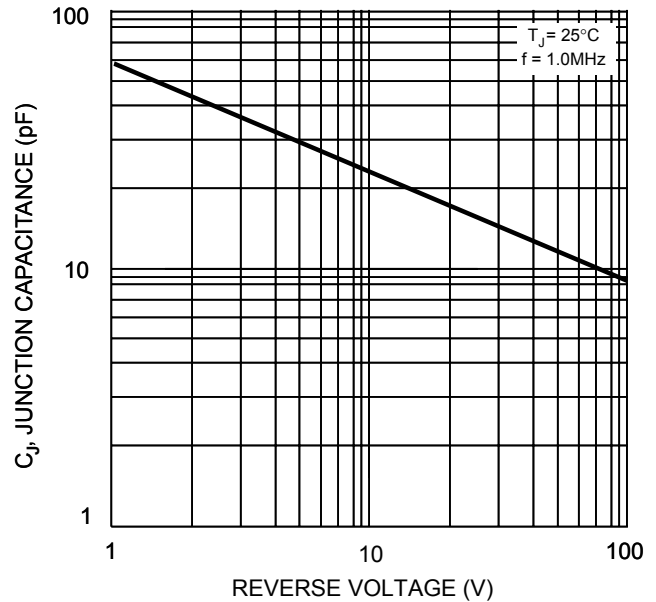


Fig.4 Typical Junction Capacitance Per Diode



The curve above is for reference only.