

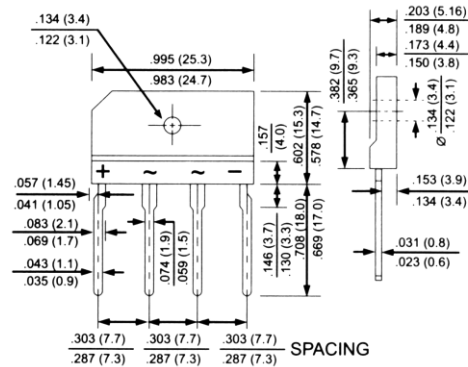


GBJ/KBJ4A thru GBJ/KBJ4M

Glass Passivated Single-Phase Bridge Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 4.0 Amperes

Features

- ◆ Surge overload rating - 150 Amperes peak
- ◆ Ideal for printed circuit boards
- ◆ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Mounting Position: Any



Maximum Ratings and Electrical Characteristics

Dimensions in inches and (millimeters)

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbols	KBJ4A	KBJ4B	KBJ4D	KBJ4G	KBJ4J	KBJ4K	KBJ4M	Units	
		GBJ4A	GBJ4B	GBJ4D	GBJ4G	GBJ4J	GBJ4K	GBJ4M		
Maximum recurrent 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 rectified output current @ $T_c=100^\circ\text{C}$ (with heatsink Note 2) (without heatsink)	$I_{F(AV)}$					4.0 2.4				Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}					150.0				Amps
Max. instantaneous forward voltage drop at 2.0A DC	V_F					1.0				Volt
Maximum DC reverse current @ $T_j=25^\circ\text{C}$ at rated DC blocking voltage per element @ $T_j=125^\circ\text{C}$	I_R					5.0 500.0				μA
Rating for fusing (t<8.3ms)	Pt					93				A ² sec
Typical junction capacitance per element (Note 1)	C_j					45				pF
Typical thermal resistance (Note 2)	$R_{\theta JC}$					2.2				$^\circ\text{C}/\text{W}$
Operating temperature range	T_j					-55 to +150				$^\circ\text{C}$
Storage temperature range	T_{STG}					-55 to +150				$^\circ\text{C}$

- Notes:**
1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
 2. Device mounted on 50mm x 50mm x 1.6mm Cu plate heatsink

RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 - FORWARD CURRENT DERATING CURVE

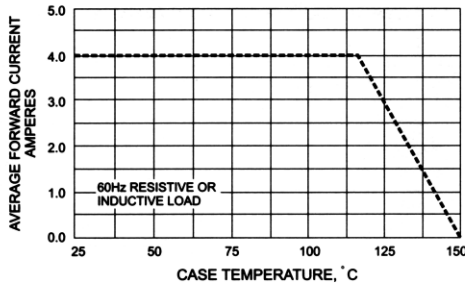


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

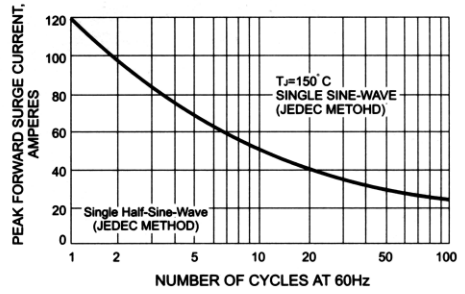


FIG. 2 - TYPICAL FORWARD CHARACTERISTICS

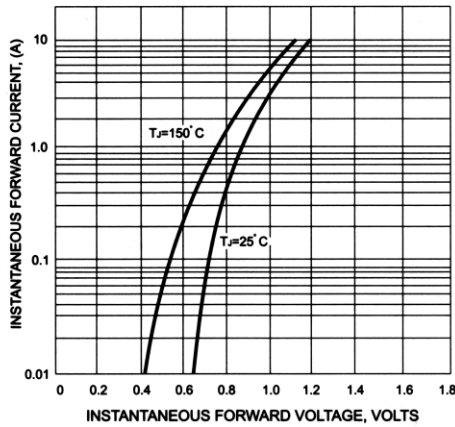


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

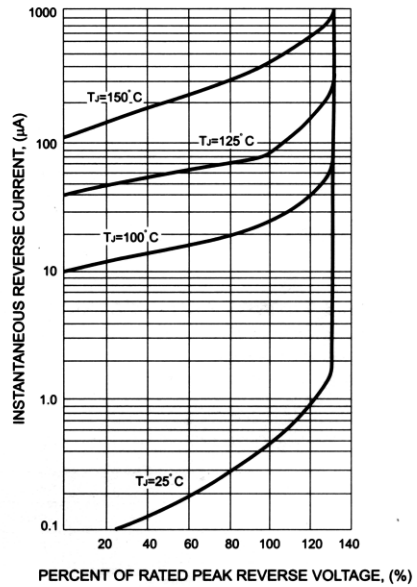


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

