

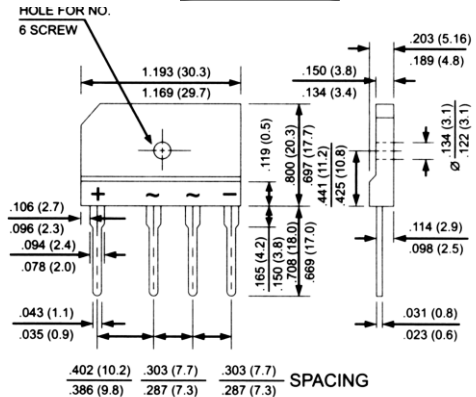


GBJ/KBJ8A thru GBJ/KBJ8M

Glass Passivated Single-Phase Bridge Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 8.0 Amperes

Features

- ◆ Rating to 1000V PRV
- ◆ Ideal for printed circuit boards
- ◆ Low forward voltage drop, high current capability
- ◆ Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- ◆ The plastic material has Underwriters Laboratory Flammability Classification 94V-0



Maximum Ratings and Electrical Characteristics

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%

Dimensions in inches and (millimeters)

Parameter	Symbols	KBJ8A	KBJ8B	KBJ8D	KBJ8G	KBJ8J	KBJ8K	KBJ8M	Units
		GBJ8A	GBJ8B	GBJ8D	GBJ8G	GBJ8J	GBJ8K	GBJ8M	
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 (with heatsink Note 2) rectified output current @ $T_c=100^{\circ}C$ (without heatsink)	$I_{F(AV)}$	8.0 2.9							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	170.0							Amps
Max. instantaneous forward voltage drop at 4.0A DC	V_F	1.0							Volt
Maximum DC reverse current @ $T_j=25^{\circ}C$ at rated DC blocking voltage per element @ $T_j=125^{\circ}C$	I_R	5.0 500.0							μA
Rating for fusing ($t < 8.3ms$)	I^2t	120							$A^2 \cdot sec$
Typical junction capacitance per element (Note 1)	C_j	55							pF
Typical thermal resistance (Note 2)	$R_{\theta JC}$	1.6							$^{\circ}C/W$
Operating temperature range	T_j	-55 to +150							$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150							$^{\circ}C$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
2. Device mounted on 100mm x 100mm 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

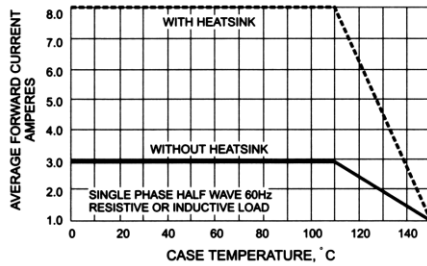


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

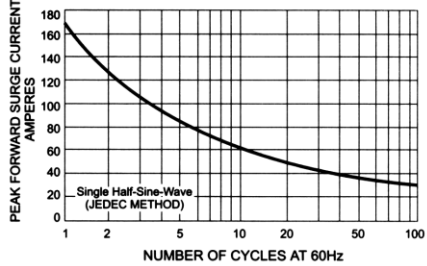


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

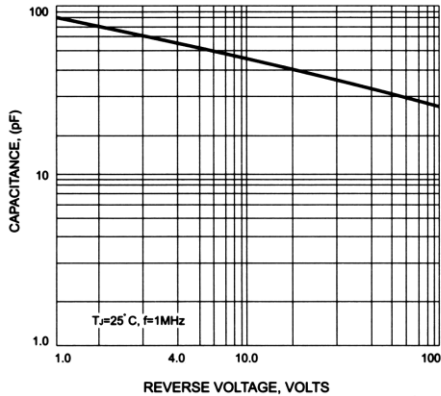


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

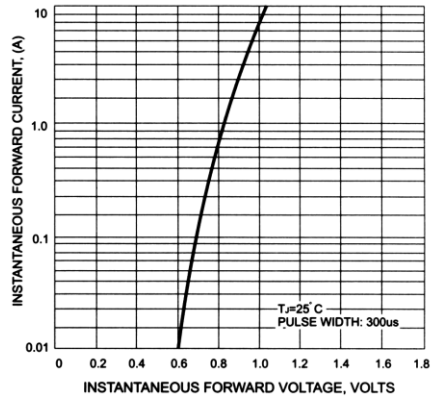


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

