



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

**GBK50A
THRU
GBK50M**

TECHNICAL SPECIFICATIONS OF GLASS PASSIVATED BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts **CURRENT - 50 Amperes**

FEATURES

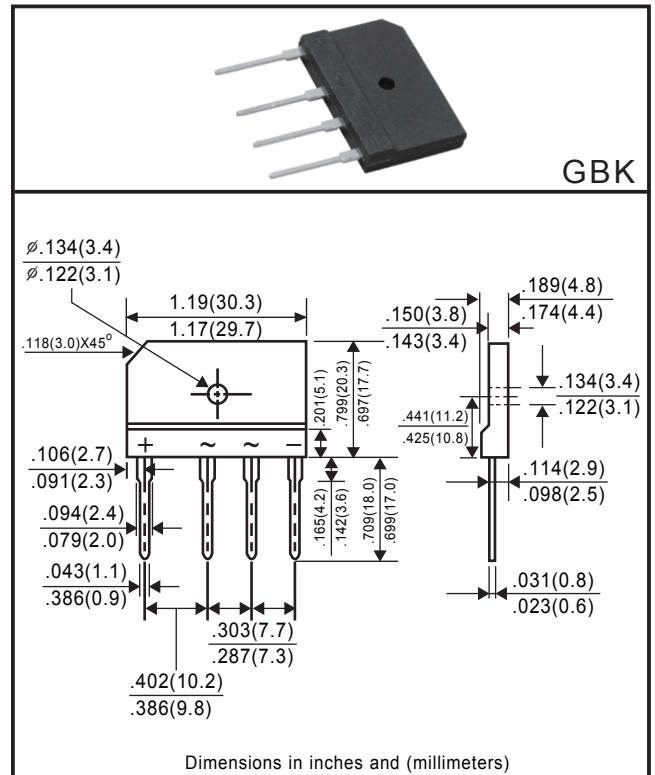
- * High forward surge capability
- * High capability
- * High current capability
- * Low forward voltage drop
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94-V0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 6.5 grams

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, derate current by 20%.



	SYMBOL	GBK50A	GBK50B	GBK50D	GBK50G	GBK50J	GBK50K	GBK50M	UNITS
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 Current at T _A = 100°C	I _O	50							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400							Amps
Maximum Instantaneous Forward Voltage at 25A DC	V _F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _J = 25°C	10							μAmps
	@T _J = 125°C	100							
I ² t Rating for Fusing (t<8.3ms)	I ² t	660							A ² s
Typical Thermal Resistance to case with heatsink (Note 2)	R _{θJC}	0.6							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

Note 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. Device mounted on 300mm*300mm*1.6mm Cu plate heatsink.

RATING AND CHARACTERISTIC CURVES (GBK50A THRU GBK50M)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

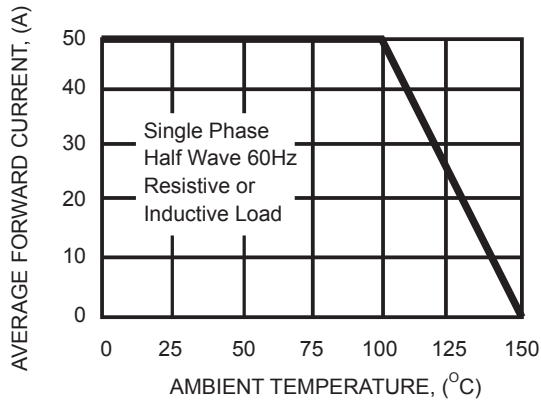


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

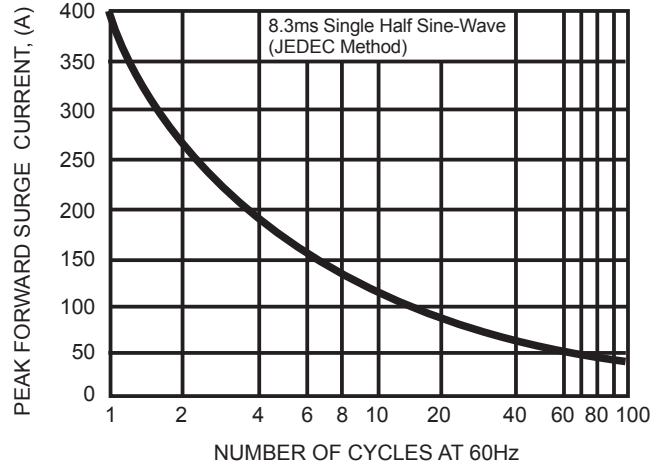


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

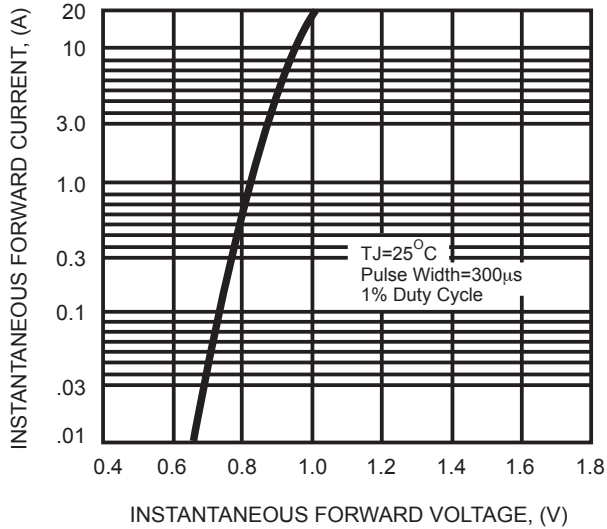
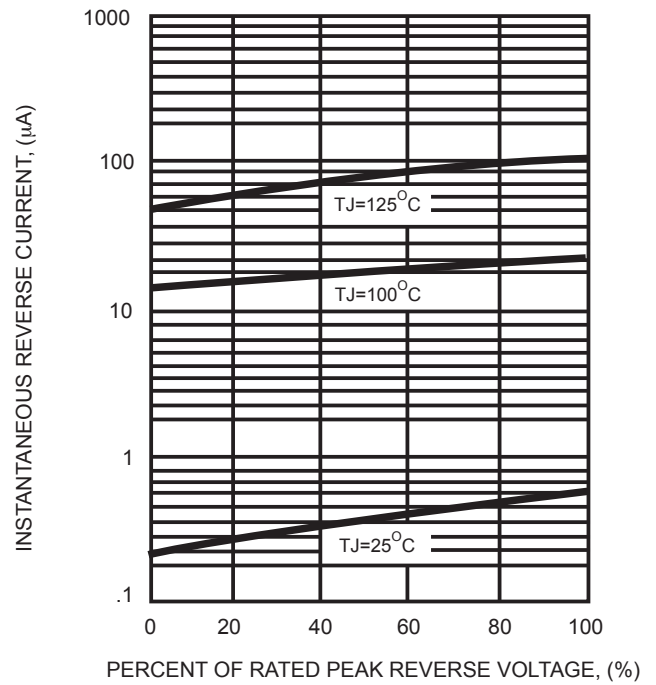


FIG. 4
TYPICAL REVERSE CHARACTERISTICS



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