



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

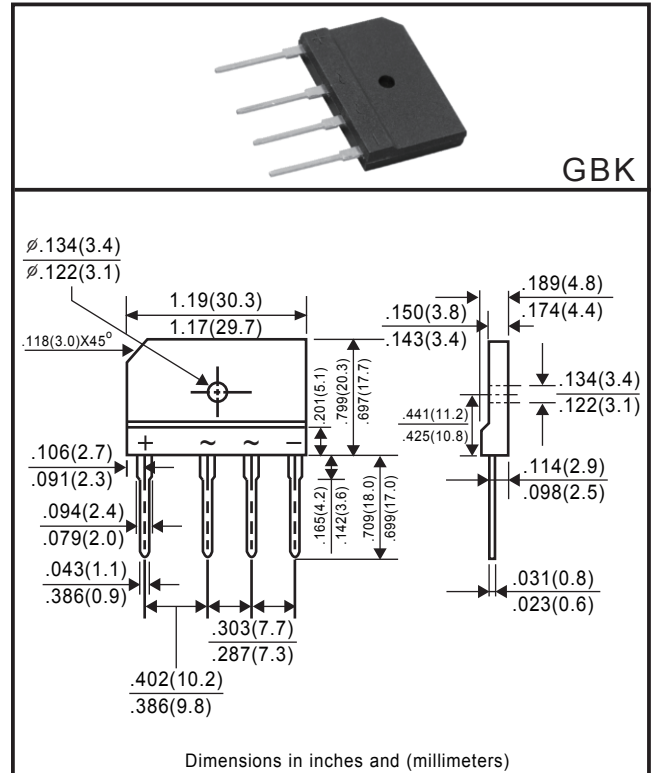
- * High forward surge capability
- * High capability
- * High current capability
- * Low forward voltage drop
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94-V0 rate flame retardant
- * Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 6.5 gram

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	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 100°C	Io	50							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	400							Amps
Maximum Instantaneous Forward Voltage at 25A DC	VF	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TJ = 25°C	10							µAmps
	@TJ = 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)	RθJC	0.6							°C/W
Operating and Storage Temperature Range	TJ, TSTG	-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

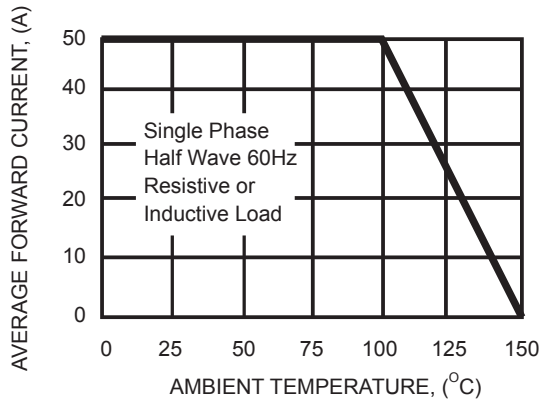


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

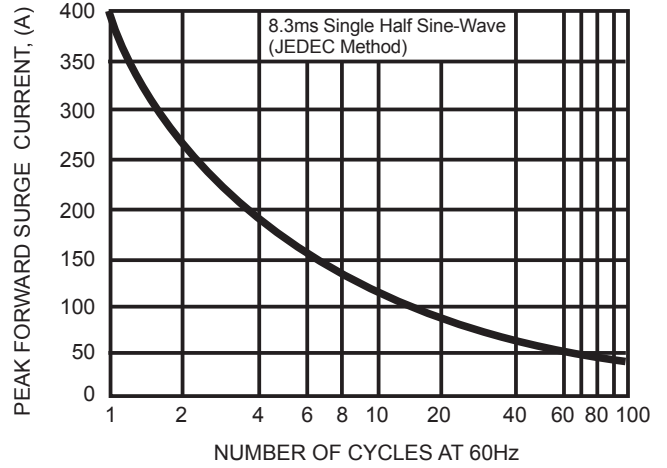


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

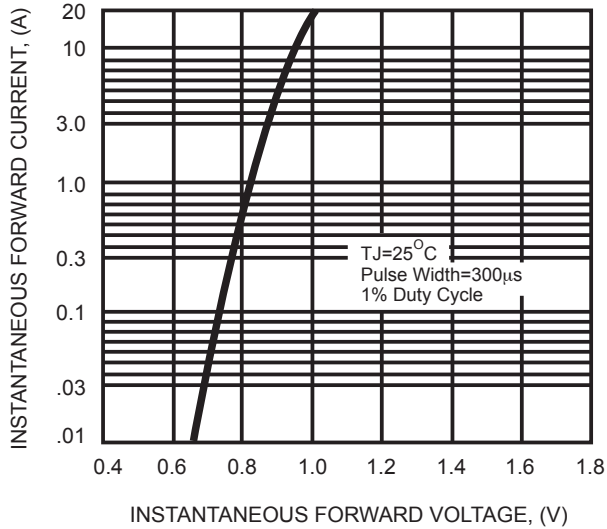
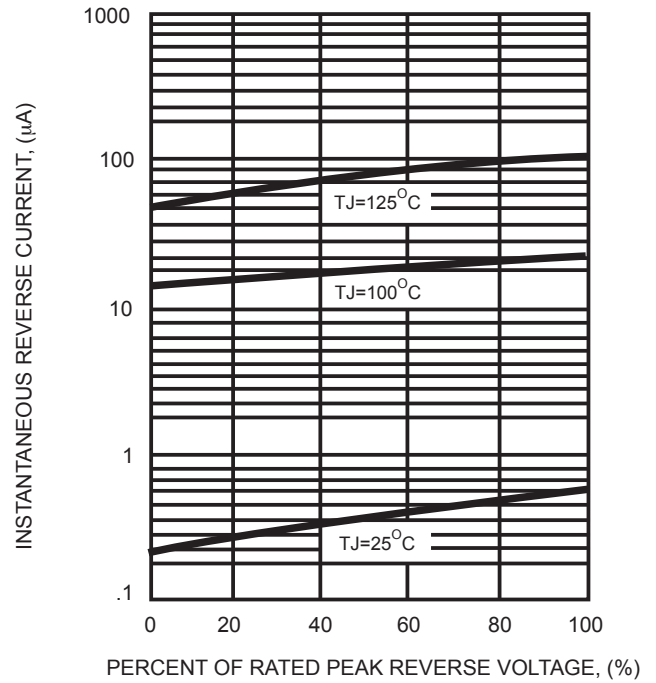


FIG. 4
TYPICAL REVERSE CHARACTERISTICS



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