



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

GBK35A  
THRU  
GBK35M

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIER**

**VOLTAGE RANGE - 50 to 1000 Volts**

**CURRENT - 35 Amperes**

**FEATURES**

- \* Ideal for printed circuit board
- \* Surge overload rating: 350 Amperes peak
- \* Glass passivated junction

**MECHANICAL DATA**

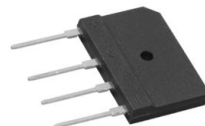
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

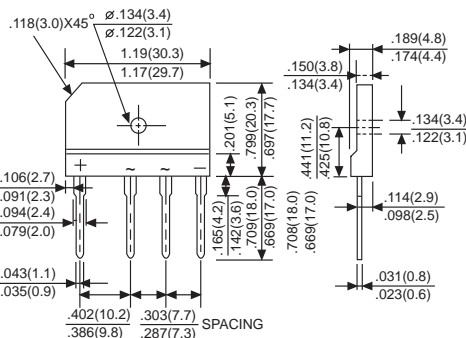
Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.



GBK



Dimensions in inches and (millimeters)

		SYMBOL	GBK35A	GBK35B	GBK35D	GBK35G	GBK35J	GBK35K	GBK35M	UNITS
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current @ T <sub>A</sub> =100°C (with heatsink Note 2) (without heatsink)		I <sub>AV</sub>	35 5.0						Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I <sub>FSM</sub>	400						Amps	
Maximum Forward Voltage Drop per element at 17.5A DC		V <sub>F</sub>	1.1						Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@ T <sub>J</sub> = 25°C	I <sub>R</sub>	10						μAmps	
	@ T <sub>J</sub> = 125°C		500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		I <sup>2</sup> t	510						A <sup>2</sup> s	
Typical Junction Capacitance Per Element (Note 1)		C <sub>J</sub>	85						pF	
Typical Thermal Resistance (Note 2)		R <sub>θJC</sub>	0.6						°C/W	
Operating Temperature Range		T <sub>J</sub>	-55 to +150						°C	
Storage Temperature Range		T <sub>STG</sub>	-55 to +150						°C	

NOTES : 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

2.Thermal Resistance from Junction to Case per element Unit mounted on 100x100x1.6mm Cu plate heat-sink.

RATING AND CHARACTERISTIC CURVES (GBK35A THRU GBK35M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

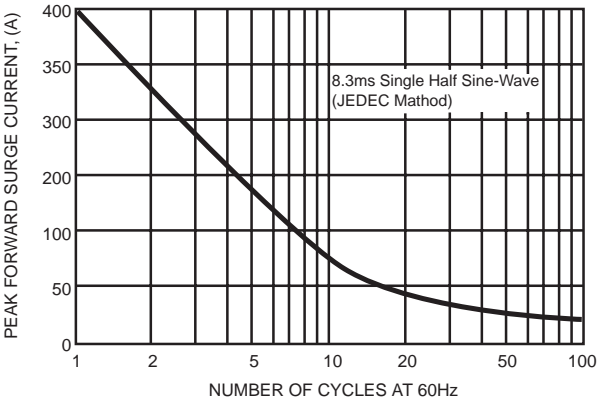


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

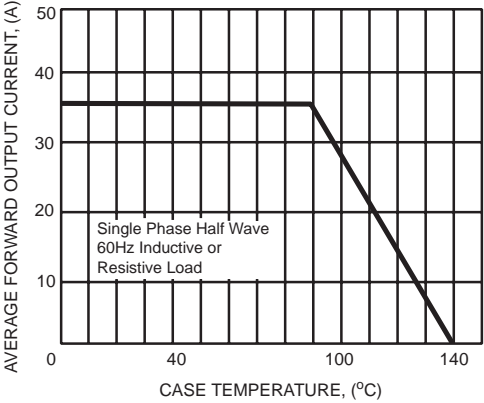


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

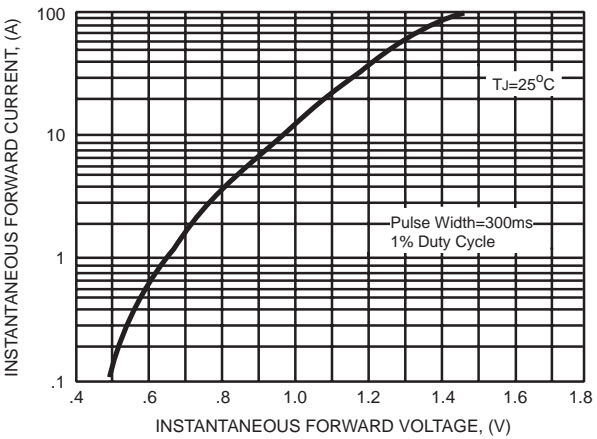


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

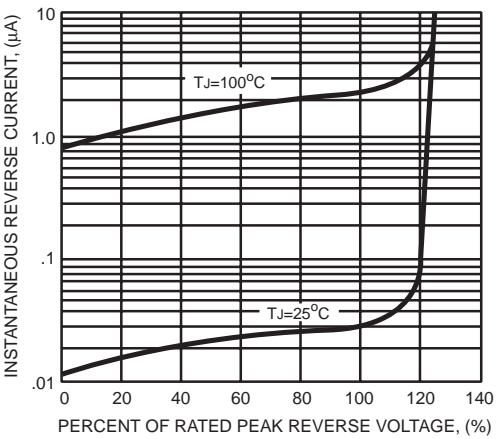
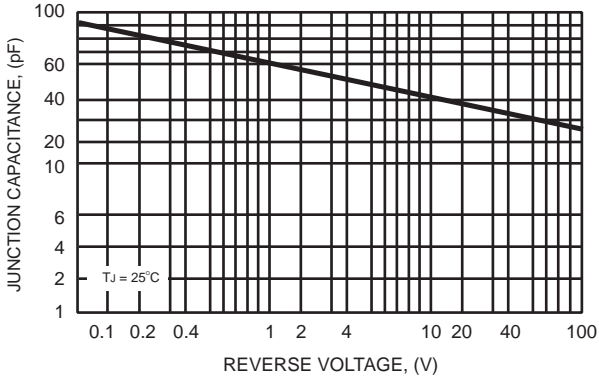


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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