



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

GBK25A
THRU
GBK25M

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 25 Amperes

FEATURES

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

MECHANICAL DATA

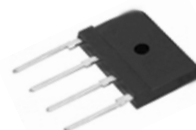
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

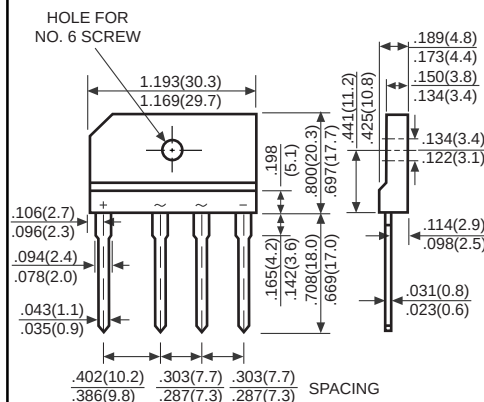
Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.



GBK



Dimensions in inches and (millimeters)

		SYMBOL	GBK25A	GBK25B	GBK25D	GBK25G	GBK25J	GBK25K	GBK25M	UNITS
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 @ Tc=50°C (with heatsink Note 2) (without heatsink)		I _{AV}	25 4.2						Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	350						Amps	
Maximum Forward Voltage Drop per element at 12.5A DC		V _F	1.1						Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@ T _J = 25°C	I _R	10						μAmps	
	@ T _J = 125°C		500							
I ² t Rating for Fusing (t<8.3ms)		I ² t	510						A ² Sec	
Typical Junction Capacitance (Note1)		C _J	85						pF	
Typical Thermal Resistance (Note 2)		RθJA	0.6						°C/W	
Operating Temperature Range		T _J	-55 to +150						°C	
Storage Temperature Range		T _{STG}	-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 (GBK25A THRU GBK25M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

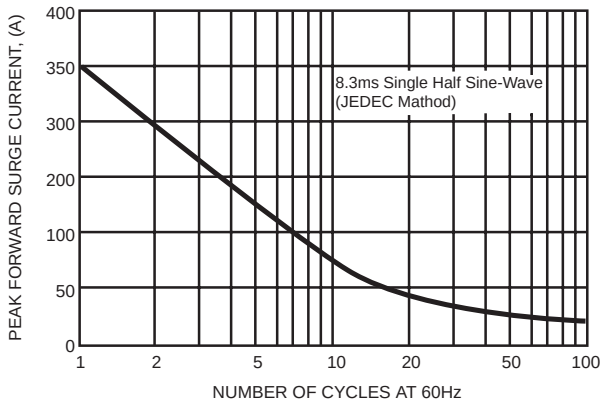


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

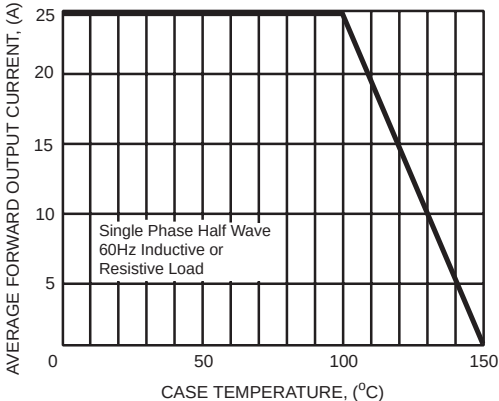


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

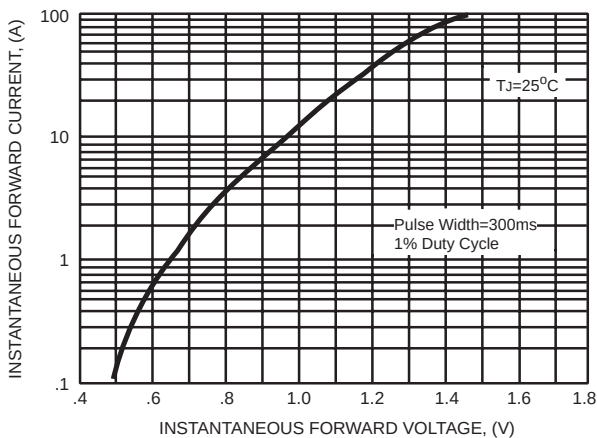
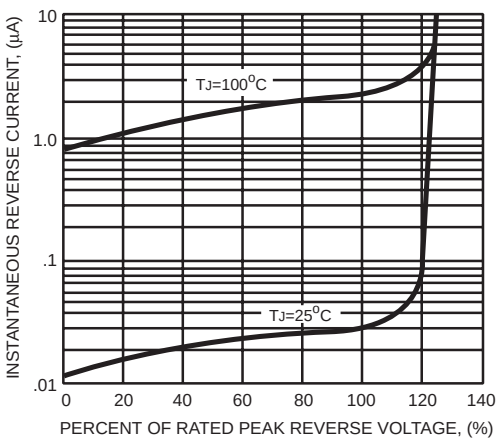


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



DC COMPONENTS CO., LTD.