DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

GBK25A THRU GBK25M

TECHNICAL SPECIFICATIONS OF GLASS PASSIVATED BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 25 Amperes*

FEATURES

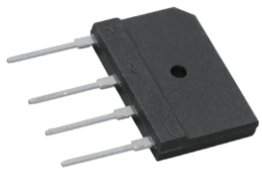
* High forward surge capability
* High capability
* High current capability
* Low forward voltage drop
* Glass passivated junction

MECHANICAL DATA

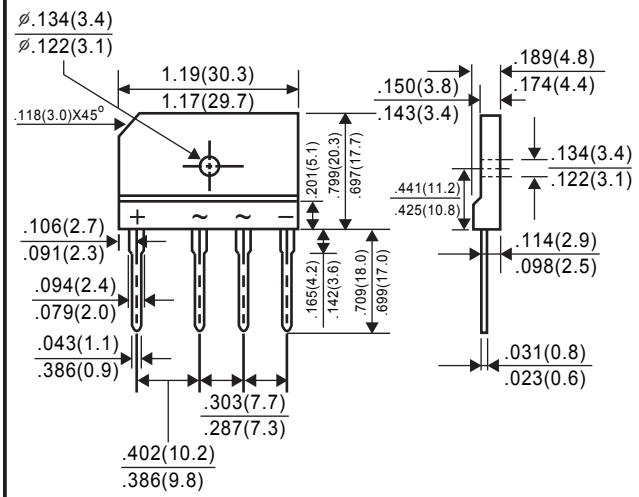
* Case: Molded plastic
* Epoxy: UL 94-V0 rate flame retardant
* Terminals: Solder plated solderable per MIL-STD-750, Method 2026
* Polarity: As marked
* Mounting position: Any
* Weight: 6.5 gram

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%.



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 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	25							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	350							Amps
Maximum Instantaneous Forward Voltage at 12.5A DC		V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TJ = 25°C	I_R	10							μAmps
	@TJ = 125°C		100							
Typical Junction Capacitance (Note 1)		C_J	85							pF
I^2t Rating for Fusing (t<8.3mS)		I^2t	508							A^2s
Typical Thermal Resistance to case with heatsink (Note 2)		$R_{\theta JC}$	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 (GBK25A THRU GBK25M)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

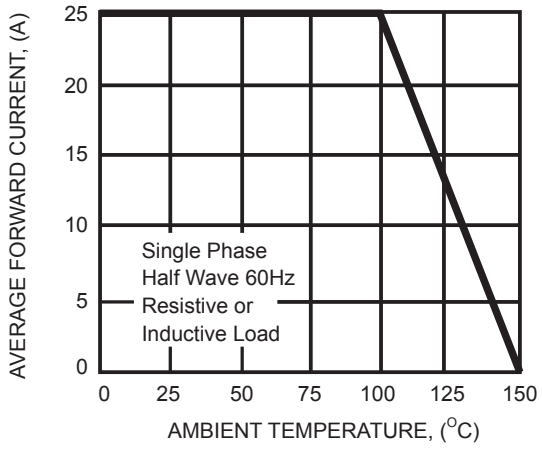


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

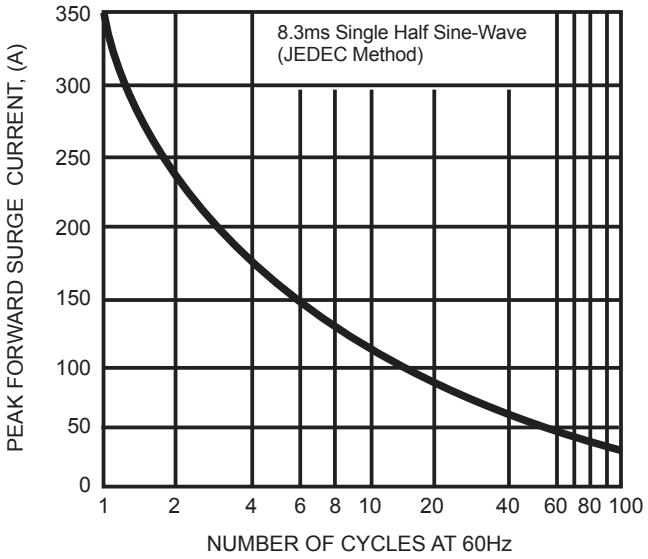


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

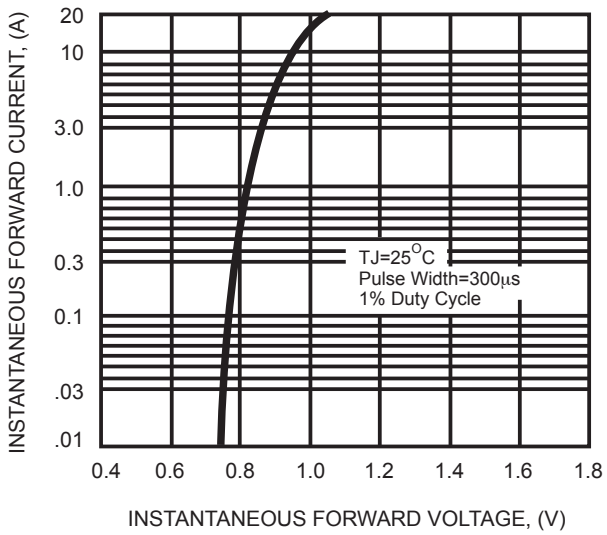


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

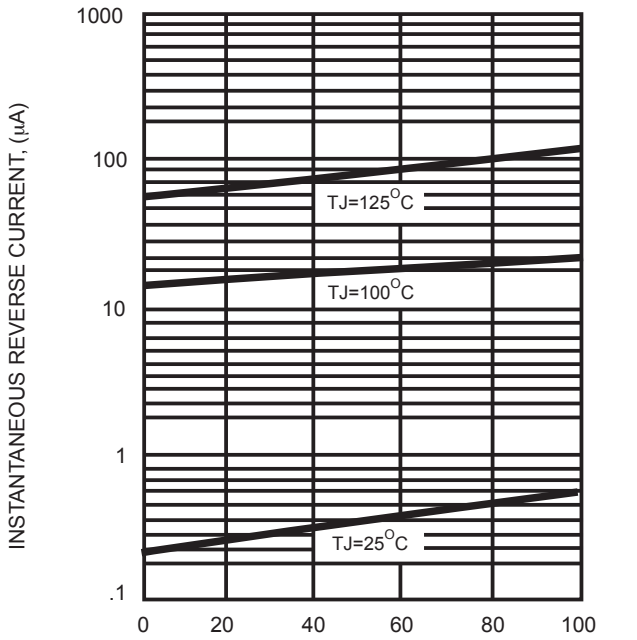
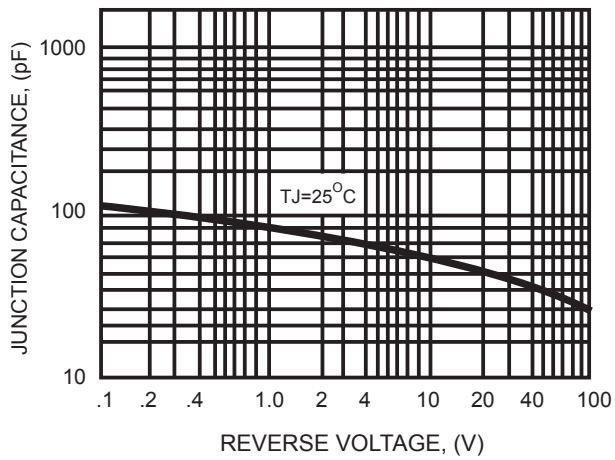


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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