

FEATURES

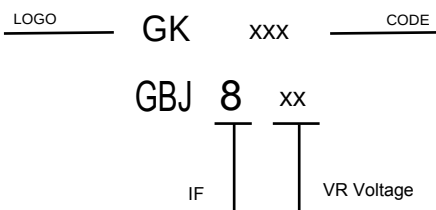
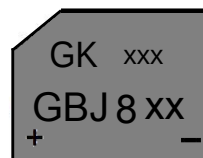
- * Ideal for printed circuit board
- * Low forward voltage
- * Low leakage current
- * Mounting position: Any

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

8.0 Ampere



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	GBJ8005	GBJ801	GBJ802	GBJ804	GBJ806	GBJ808	GBJ810	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2)	8.0							A
Rectified Current at Tc=110°C (Without heatsink)	2.9							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	170							A
Maximum Forward Voltage Drop per Bridge Element at 4.0A D.C.	1.0							V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=100°C	500							μA
Typical Thermal Resistance R _{jc} (Note 1)	2.8							°C/W
Typical Thermal Resistance R _{jl} (Note 2)	5.5							°C/W
Operating Temperature Range, T _J	-55 — +150							°C
Storage Temperature Range, T _{stg}	-55 — +150							°C

NOTES:

1. Thermal Resistance from Junction to Case with device mounted on 100mm x 100mm x 1.6mm Cu Plate Heatsink.
2. Thermal Resistance from Junction to Lead without Heatsink.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

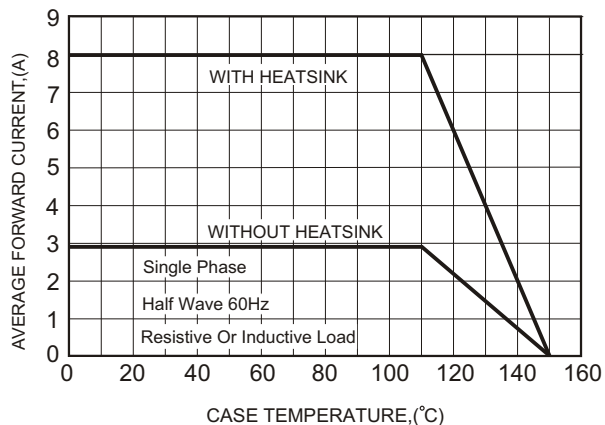


FIG.2-TYPICAL FORWARD CHARACTERISTICS

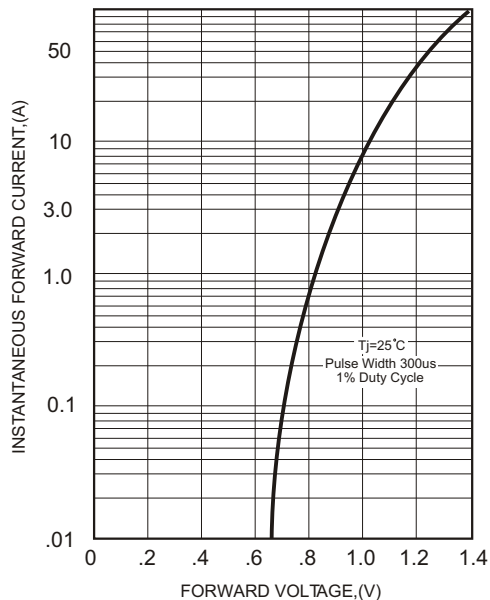


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

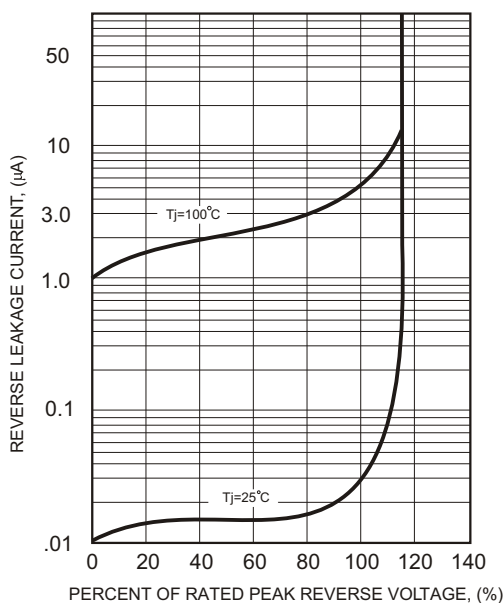
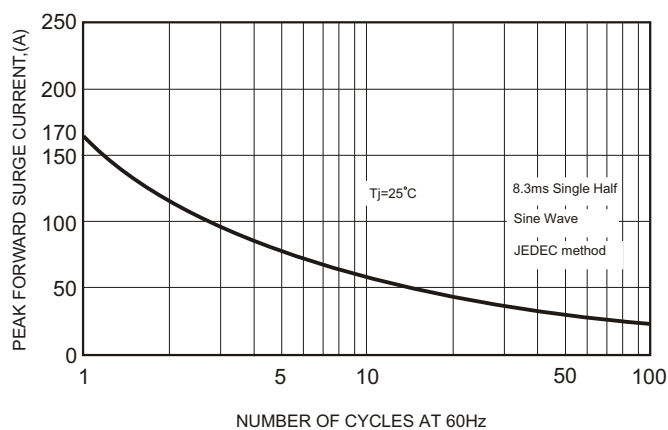
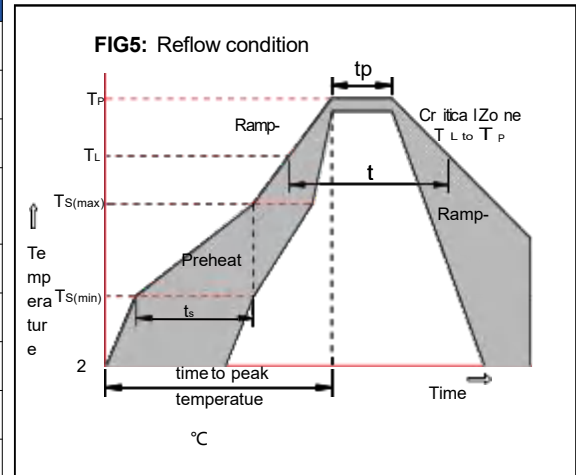


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

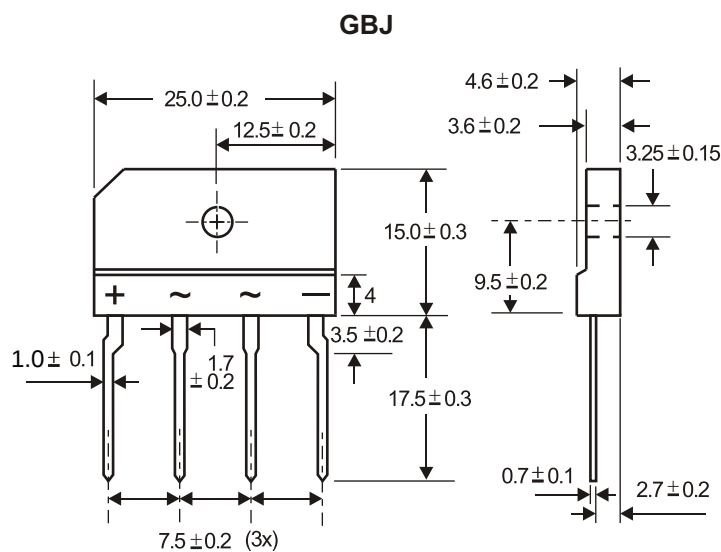


Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 °C
	-Temperature Max ($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3 °C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature (T_L) (Liquid us)	+217 °C
	-Temperature (t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp (t_P)		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 °C



Package Dimensions & Suggested Pad Layout



Dimensions in inches and (millimeters)