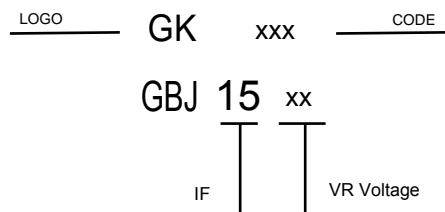
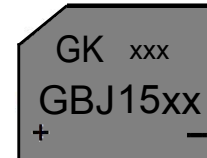


## FEATURES

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

## VOLTAGE RANGE

50 to 1000 Volts  
**CURRENT**  
15.0 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	GBJ15005	GBJ1501	GBJ1502	GBJ1504	GBJ1506	GBJ1508	GBJ1510	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)								15.0	A
.375"(9.5mm) Lead Length at Tc=100°C (Without heatsink)								3.2	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)								240	A
Maximum Forward Voltage Drop per Bridge Element at 7.5A D.C.								1.05	V
Maximum DC Reverse Current Ta=25°C								10	μA
at Rated DC Blocking Voltage Ta=125°C								500	μA
Typical Junction Capacitance (Note 1)								60	PF
Typical Thermal Resistance R <sub>jc</sub> (Note 2)								0.8	°C/W
Operating Temperature Range, T <sub>J</sub>								-55 — +150	°C
Storage Temperature Range, T <sub>stg</sub>								-55 — +150	°C

**NOTES:**

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance from Junction to Case with device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

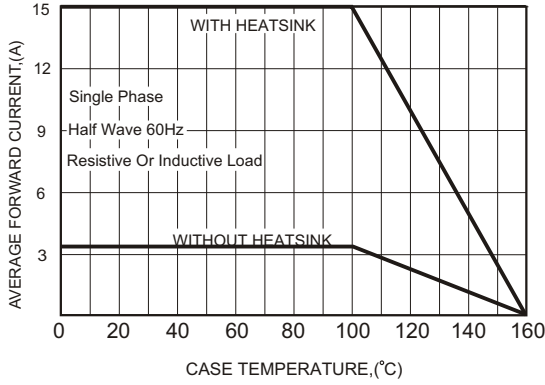


FIG.2-TYPICAL FORWARD CHARACTERISTICS

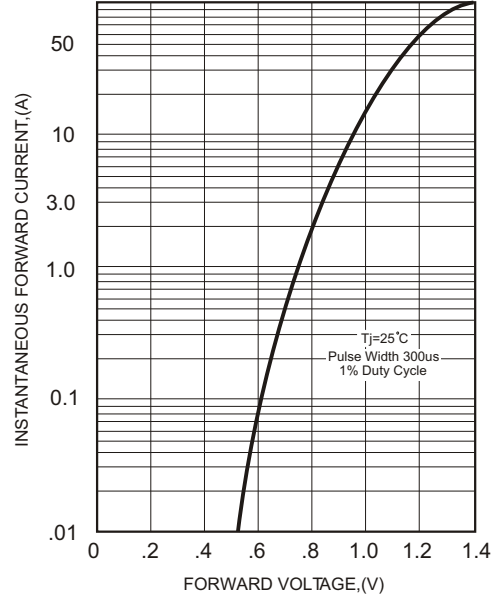


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

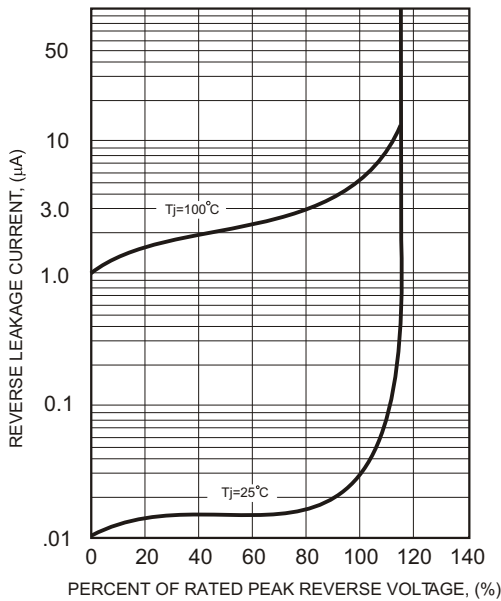
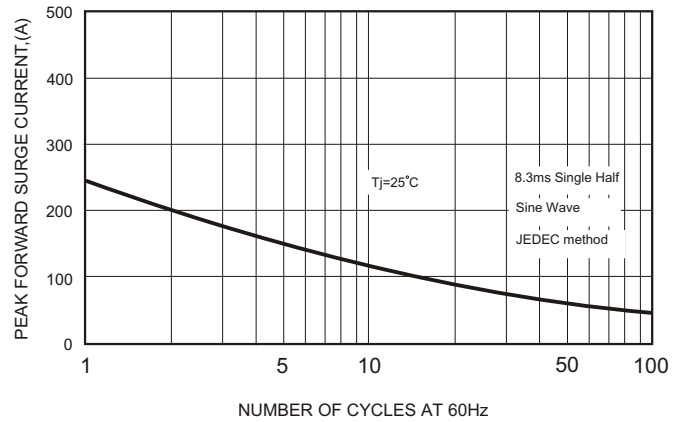


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

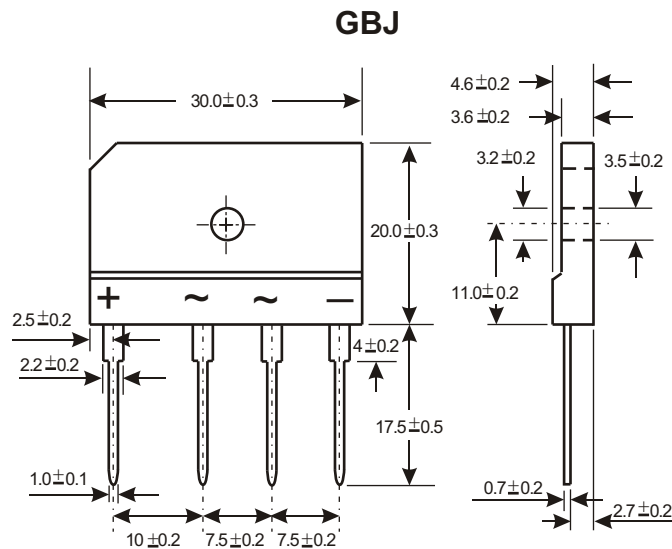


Soldering parameters

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)