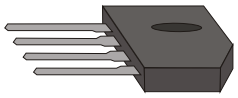
GBU6005 THRU GBU610

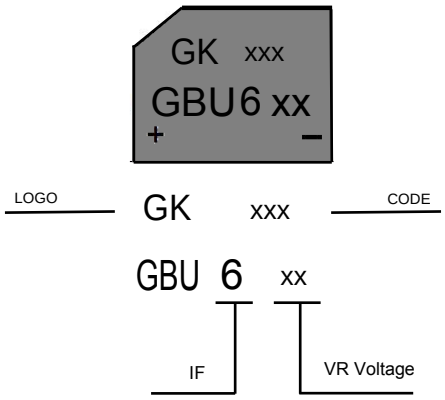
SINGLE PHASE 6.0 AMP BRIDGE RECTIFIERS

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
6 Ampere

FEATURES

* Ideal for printed circuit board
* Low forward voltage
* Low leakage current
* Polarity: marked on body
* Mounting position: Any





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25℃ ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	GBU6005	GBU601	GBU602	GBU604	GBU606	GBU608	GBU610	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 Rectified Current	6.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Forward Voltage Drop per Bridge Element at 3.0A D.C.	1.0							V
Maximum DC Reverse Current Ta=25℃	5.0							μA
at Rated DC Blocking Voltage Ta=100℃	500							μA
Operating Temperature Range, T_J	-65 — +150							℃
Storage Temperature Range, T_{STG}	-65 — +150							℃

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

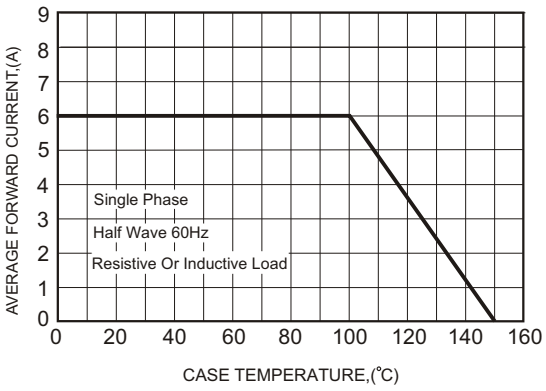


FIG.2-TYPICAL FORWARD CHARACTERISTICS

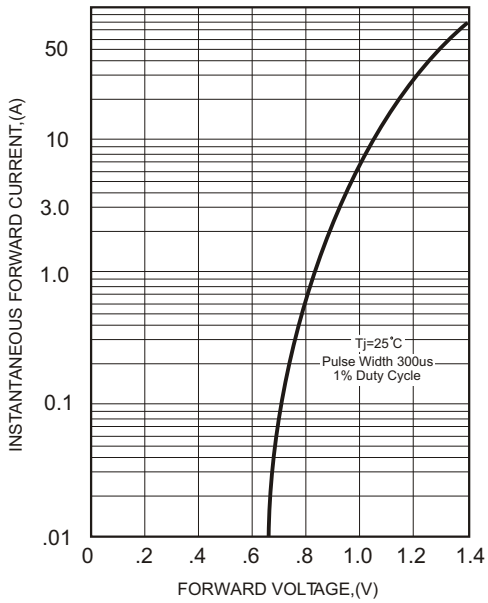


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

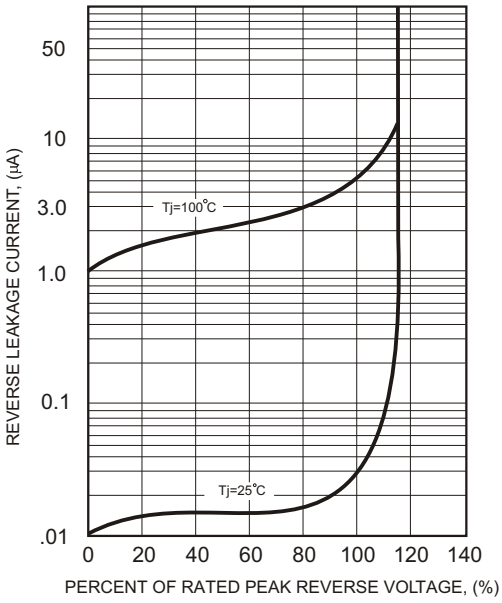
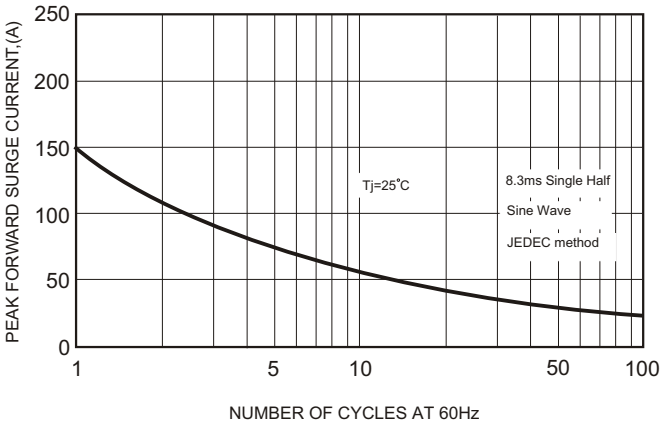


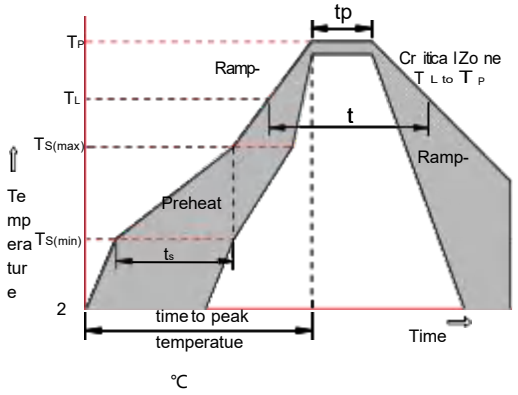
FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



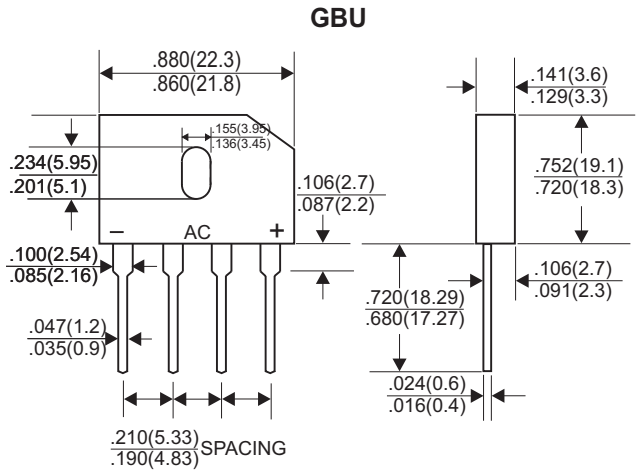
Soldering parameters

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

FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout



Dimensions in inches and (millimeters)