

## Silicon Bridge Rectifiers

## GBL4005--GBL410

### FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Plastic material has U/L flammability classification 94V-O
- Mounting position: Any
- Glass passivated chip junctions



Lead-free

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	GBL4005	GBL401	GBL402	GBL04	GBL406	GBL408	GBL410	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward Output current @T <sub>C</sub> =50°C	$I_{F(AV)}$	4.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	150.0							A

### Thermal Characteristics

Characteristic	Symbol	GBL4005	GBL401	GBL402	GBL04	GBL406	GBL408	GBL410	UNITS
Typical junction capacitance per leg (note 1)	$C_J$	65				25			p F
Typical thermal resistance per leg (note 2) (note 3)	$R_{\theta JL}$ $R_{\theta JL}$	34				15			°C/W
Operating junction temperature range	$T_J$	- 55 ---- + 150							°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150							°C

### Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	GBL4005	GBL401	GBL402	GBL04	GBL406	GBL408	GBL410	UNITS
Maximum instantaneous forward voltage @2.0A	$V_F$	1.0							V
Maximum reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>C</sub> =100°C	$I_R$	5.0				500			μ A

NOTE: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

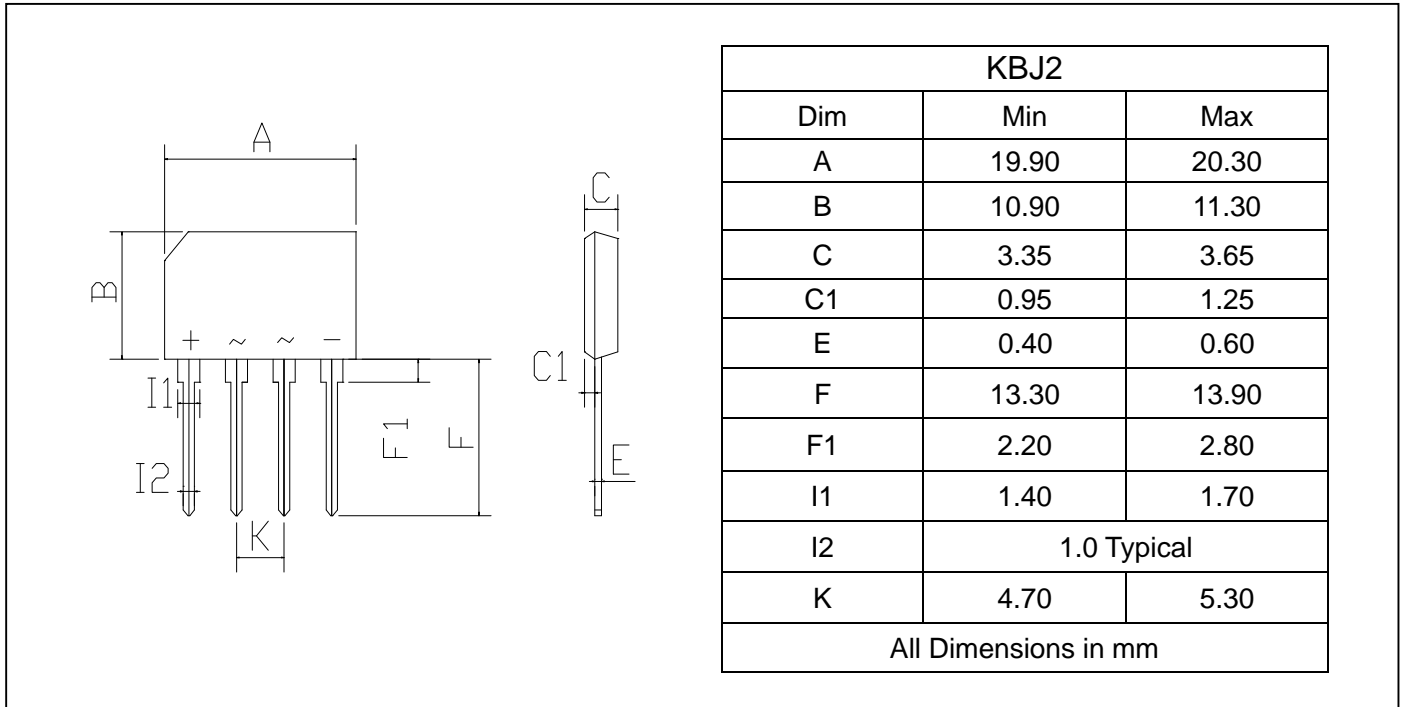
2. Units mounted on P.C.B. with 0.5x0.5" (12x12mm) copper pads and 0.375" (9.5mm) lead length.

3. Unit case mounted on 3.0x3.0x0.11" thick (7.5x7.5x0.3cm) Al. Plate.

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**PACKAGE OUTLINE DIMENSIONS**



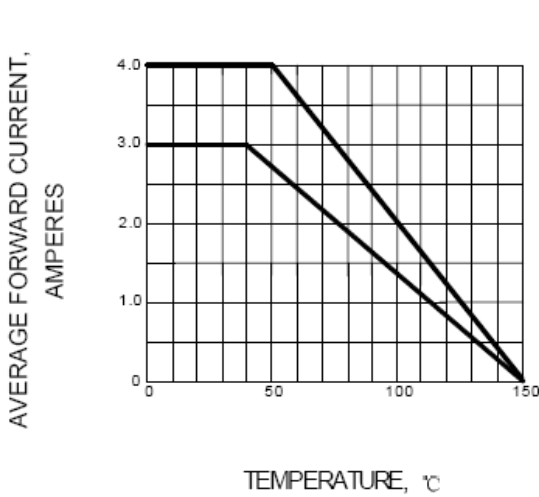
**PACKAGE INFORMATION**

Device	Package	Shipping
GBL4005--GBL410	KBJ2	500 Units/Box

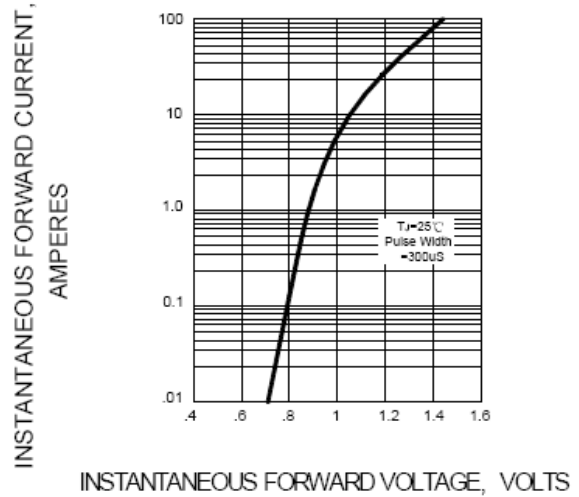
**Silicon Bridge Rectifiers**

**GBL4005--GBL410**

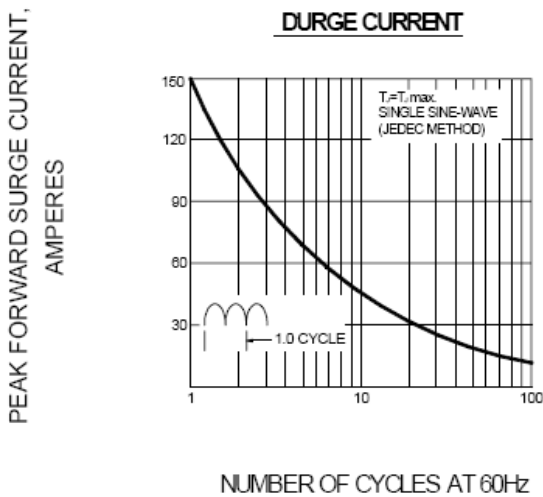
**FIG.1 -- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



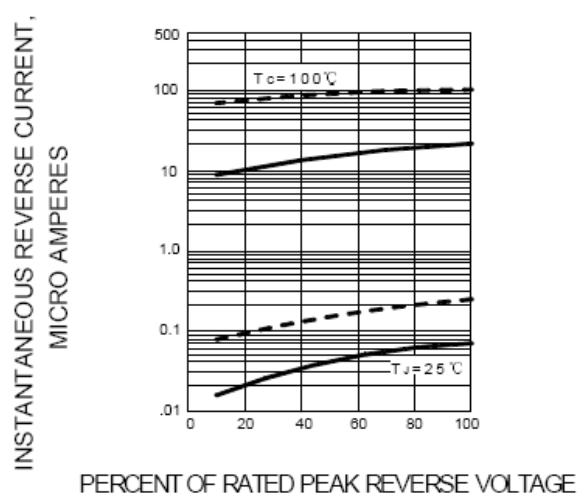
**FIG.2 -- TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 -- TYPICAL REVERSE CHARACTERISTIC**



**FIG.5 -- TYPICAL JUNCTION CAPACITANCE PER LEG**

