

RoHS Compliant Product  
 A suffix of "-C" specifies halogen & lead-free

**FEATURES**

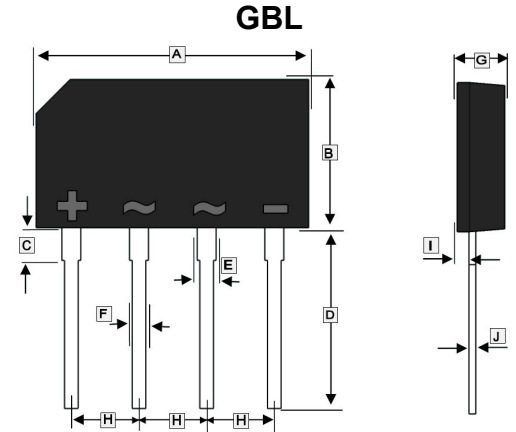
- UL recognition, file #E230084
- Low Forward Voltage
- Thin single in-line package
- High surge current capability
- Solder dip 275°C max. 7s, per JESD 22-B106

**APPLICATIONS**

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

**MECHANICAL DATA**

- Package: GBL  
 Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: As marked



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	19.2	21.2	F	0.9	1.1
B	10.5	11.5	G	3.0	4.0
C	2.0	3.0	H	4.8	5.3
D	12.7	15.0	I	0.8	1.2
E	1.2	1.8	J	0.3	0.7

**ORDER INFORMATION**

Part Number	Type
GBLL4005~GBLL410	Lead (Pb)-free
GBLL4005-C~GBLL410-C	Lead (Pb)-free and Halogen-free

**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, de-rate current by 20%.)

Parameter	Symbol	Part Number							Unit
		GBLL 4005	GBLL 401	GBLL 402	GBLL 404	GBLL 406	GBLL 408	GBLL 410	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Average Rectified Output Current @ 60Hz sine wave R-load, $T_C=120^\circ C$	With heatsink $I_O$	4.0							A
Surge (non-repetitive) Forward Current @ 60Hz sine wave, 1 cycle, $T_J=25^\circ C$	$I_{FSM}$	150							A
Current Squared Time <sup>1</sup>	$I^2t$	93							A <sup>2</sup> S
Maximum Instantaneous Forward Voltage drop per diode @ $I_{FM}=2A$	$V_F$	0.92							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per diode @ $V_{RM}=V_{RRM}$	$I_{RRM}$	5							$\mu A$
Thermal Resistance from Junction to Ambient	Without heatsink $R_{\theta JA}$	47							$^\circ C / W$
Thermal Resistance from Junction to Case	With heatsink $R_{\theta JC}$	10							
Junction and Storage temperature range	$T_J, T_{STG}$	-55~+150							$^\circ C$

Notes:  
 1.  $1ms \leq t < 8.3ms$   $T_J=25^\circ C$ , Rating of per diode

**RATINGS AND CHARACTERISTIC CURVES**

FIG1:Io-Ta Curve

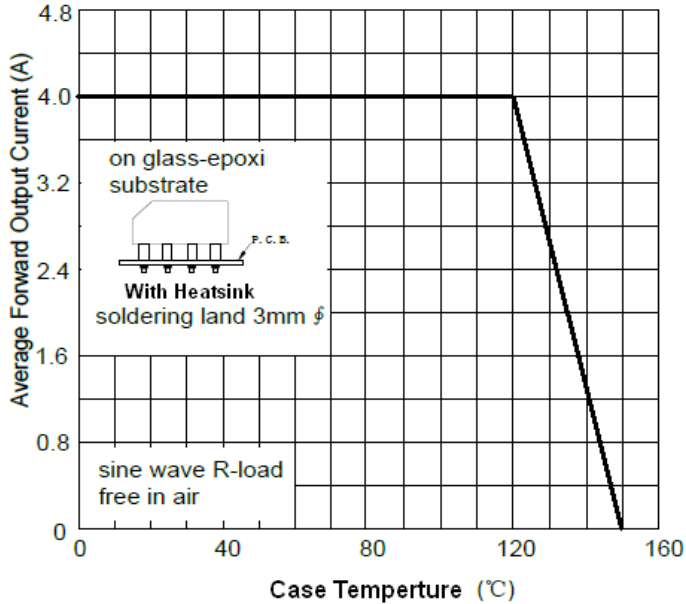


FIG2:Surge Forward Current Capability

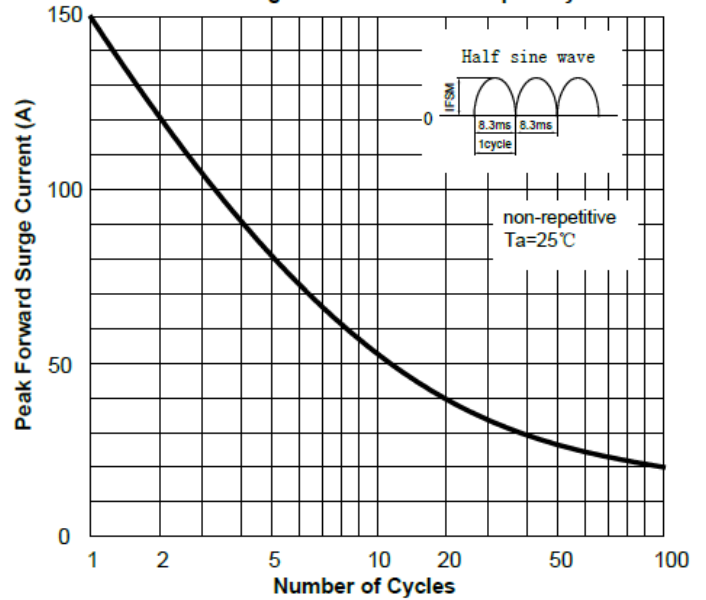


FIG3:Instantaneous Forward Voltage

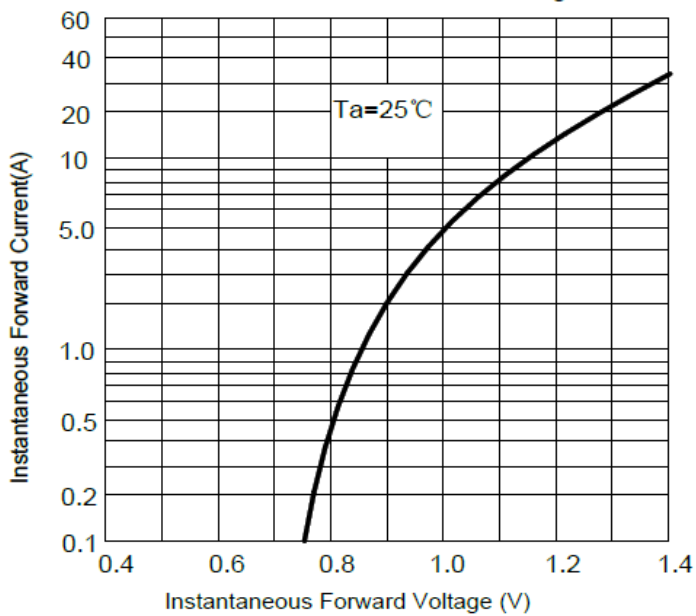


FIG4:Typical Reverse Characteristics

