

International
IOR Rectifier

4GBL Series

4.0 Amps Single Phase Full Wave

Bridge Rectifier

Features

- Diode chips are glass passivated
- Easy to assemble & install on P.C.B.
- High Surge Current Capability
- High Isolation between terminals and molded case
- Leads are suitable for high temperature
- Soldering at 260°C for 8-10 seconds
- UL evaluation is under process

$$I_{O(AV)} = 4A$$

$$V_{RRM} = 50/1200V$$

Description

These GBL Series of Single Phase Bridges consist of four glass passivated silicon junction connected as a Full Wave Bridge. These four junctions are encapsulated by plastic molding technique. These Bridges are mainly used in Switch Mode power supply and in industrial and consumer equipment.

Major Ratings and Characteristics

Parameters	4GBL	Units
I_O	4	A
@ T_C	50	°C
I_{FSM} @50Hz	150	A
@60Hz	158	A
I^2t @50Hz	113	A ² s
@60Hz	104	A ² s
V_{RRM} range	50 to 1200	V
T_J	- 55 to 150	°C



4GBL

4GBL Series

Preliminary Data Sheet rev. B I2716 12/00

International
IOR Rectifier

ELECTRICAL SPECIFICATIONS

Voltage Ratings

Type number	Voltage Code	V_{RRM} , max repetitive peak rev. voltage $T_J = T_{J,max}$ V	V_{RSM} , max non-repetitive peak rev. voltage $T_J = T_{J,max}$ V	I_{RRM} max. @ rated V_{RRM} $T_J = 25^\circ\text{C}$ μA	I_{RRM} max. @ rated V_{RRM} $T_J = 150^\circ\text{C}$ μA
4GBL	005	50	80	5	400
	01	100	150	5	400
	02	200	300	5	400
	04	400	500	5	400
	06	600	700	5	400
	08	800	900	5	400
	10	1000	1100	5	400
	12	1200	1300	5	400

Forward Conduction

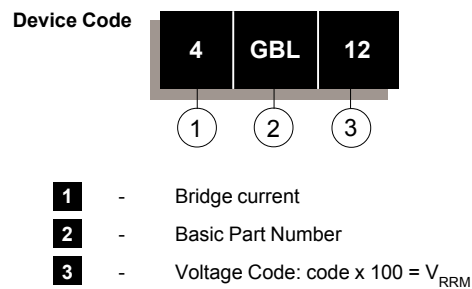
Parameters	4GBL	Unit	Conditions
I_O Maximum DC output current	4	A	$T_C = 50^\circ\text{C}$, Resistive & inductive load
	3.2		$T_C = 50^\circ\text{C}$, Capacitive load
I_{FSM} Maximum peak, one-cycle non-repetitive surge current, following any rated load condition and with rated V_{RRM} reapplied	150		$t = 10\text{ms}, 20\text{ms}$
	158		$t = 8.3\text{ms}, 16.7\text{ms}$ $T_J = 150^\circ\text{C}$
I^2t Maximum I^2t for fusing, initial $T_J = T_{J,max}$	113	A^2s	$t = 10\text{ms}$
	104		$t = 8.3\text{ms}$
V_{FM} Maximum peak forward voltage per diode	1.1	V	$T_J = 25^\circ\text{C}$, $I_{FM} = 4\text{A}$
I_{RM} Typical peak reverse leakage current per diode	5	μA	$T_J = 25^\circ\text{C}$, 100% V_{RRM}
V_{RRM} Maximum repetitive peak reverse voltage range	50 to 1200	V	

Thermal and Mechanical Specifications

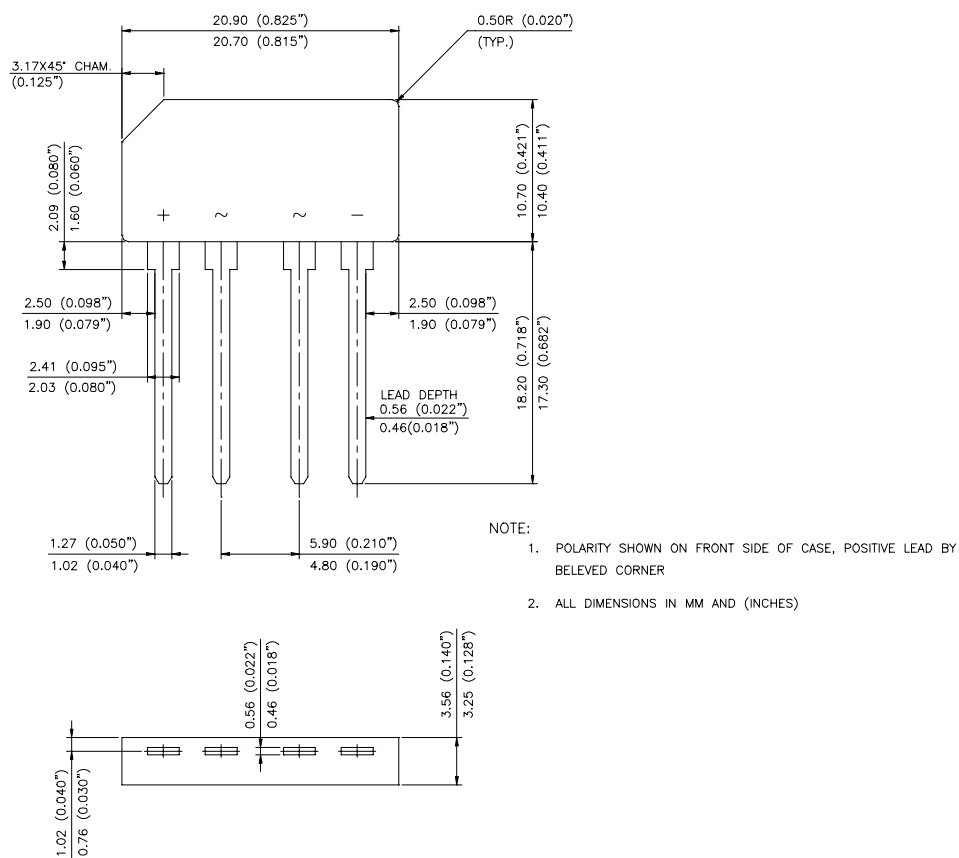
Parameters	4GBL	Unit	Conditions
T_J Operating and storage temperature range	-55 to 150	$^\circ\text{C}$	
R_{thJC} Max. thermal resistance junction to case	6.5	$^\circ\text{C}/\text{W}$	DC rated current through bridge (1)
R_{thJA} Thermal resistance, junction to ambient	22	$^\circ\text{C}/\text{W}$	DC rated current through bridge (1)
W Approximate weight	2(0.07)	g(oz)	

Note (1): Devices mounted on 75 x 75 x 3 mm aluminum plate

Ordering Information Table



Outline Table



All dimensions are in millimeters

4GBL Series

Preliminary Data Sheet rev. B I2716 12/00

International
IOR Rectifier

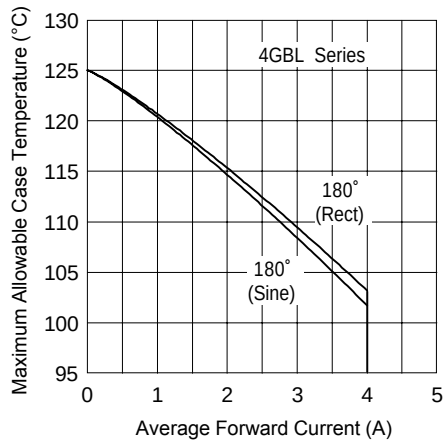


Fig. 1 - Current Ratings Characteristics

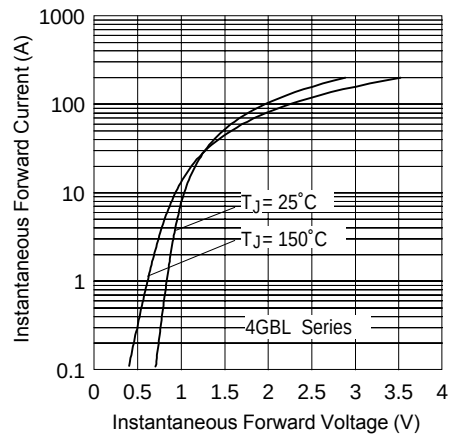


Fig. 2 - Forward Voltage Drop Characteristics

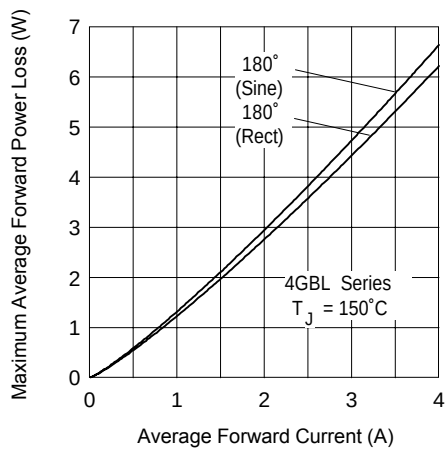


Fig. 3 - Total Power Loss Characteristics

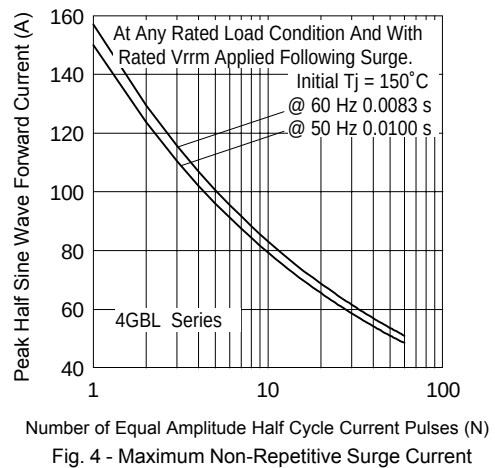


Fig. 4 - Maximum Non-Repetitive Surge Current

