

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 ($1500 V_{RMS}$)
- Lead free terminals solderable as per MIL-STD-750 Method 2026
- Terminals suitable for high temperature soldering at 260°C for 8-10 secs
- UL E160375 approved

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

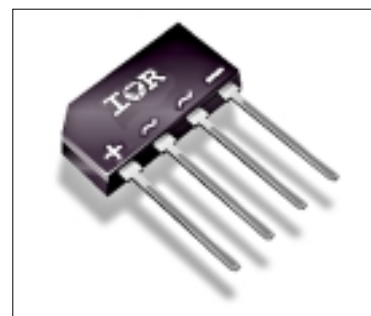
$$V_{RRM} = 50/800V$$

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	$^{\circ}\text{C}$
I_{FSM} @50Hz	150	A
@60Hz	158	A
I^2t @50Hz	113	A^2s
@60Hz	104	A^2s
V_{RRM} range	50 to 800	V
T_J	- 55 to 150	$^{\circ}\text{C}$



4GBL

ELECTRICAL SPECIFICATIONS**Voltage Ratings**

Type number	Voltage Code	V_{RRM} , max repetitive peak rev. voltage $T_J = T_J \text{ max.}$ V	V_{RMS} , maximum RMS voltage $T_J = T_J \text{ max.}$ 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	35	5	400
	01	100	70	5	400
	02	200	140	5	400
	04	400	280	5	400
	06	600	420	5	400
	08	800	560	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 $T_C = 50^\circ\text{C}$, Capacitive load
	3.2		
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 $T_J = T_J \text{ max}$	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 800	V	

Thermal and Mechanical Specifications

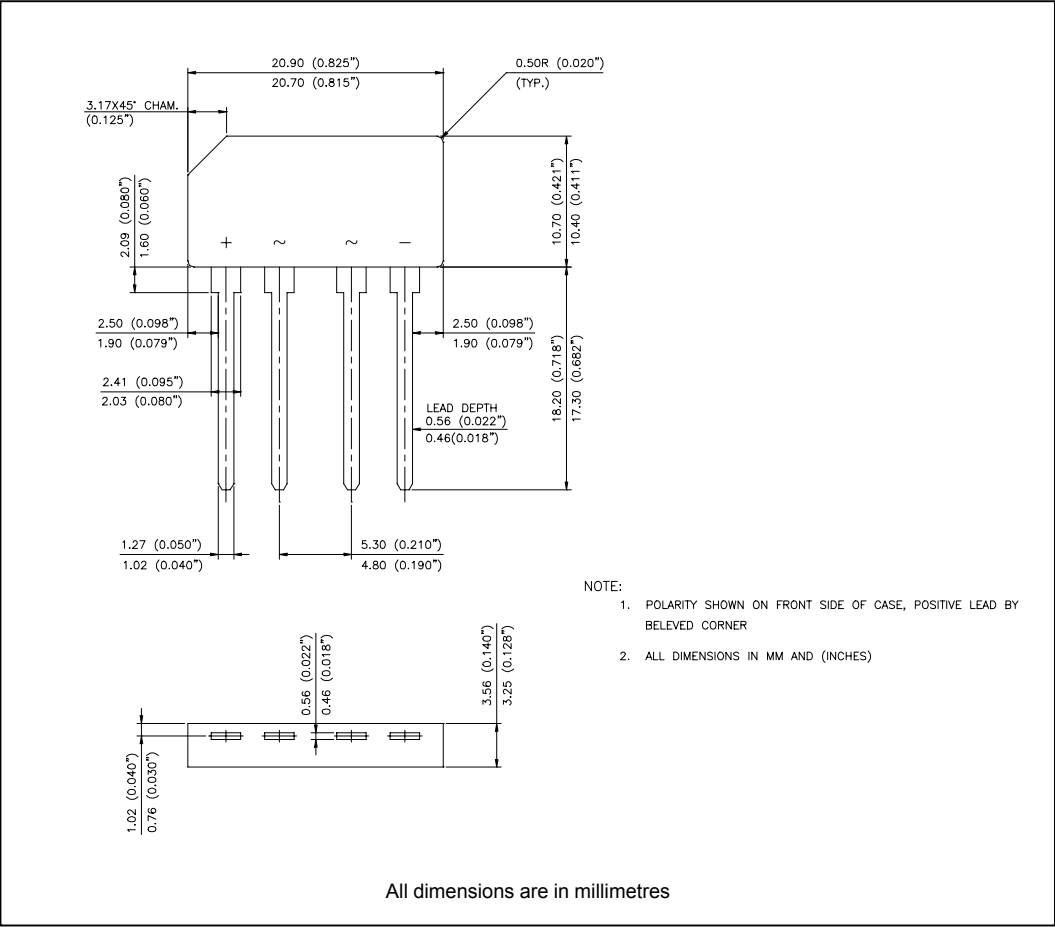
Parameters	4GBL	Unit	Conditions
T_J Operating and storage temperature range	-55 to 150	$^\circ\text{C}$	
R_{thJC} Max. thermal resistance junction to case	6.5	$^\circ\text{C/W}$	DC rated current through bridge (1)
R_{thJA} Thermal resistance, junction to ambient	22	$^\circ\text{C/W}$	DC rated current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

Device Code		
4	GBL	08
1	2	3
1	-	Bridge current
2	-	Basic Part Number
3	-	Voltage Code: code x 100 = V_{RRM}

Outline Table



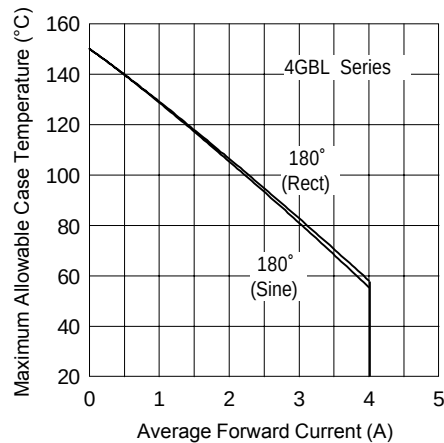


Fig. 1 - Current Ratings Characteristics

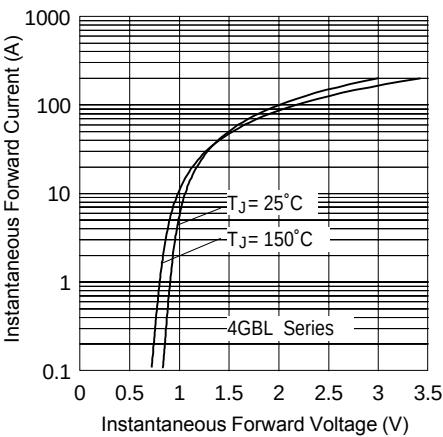


Fig. 2 - Forward Voltage Drop Characteristics

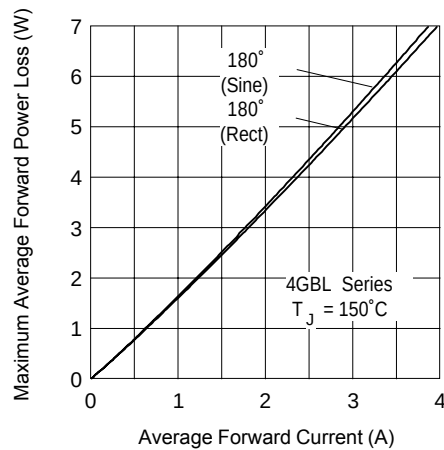


Fig. 3 - Total Power Loss Characteristics

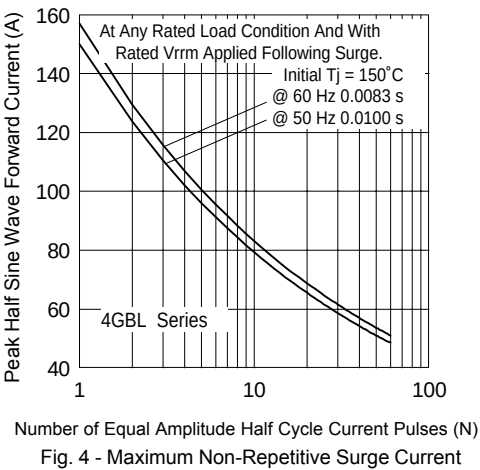


Fig. 4 - Maximum Non-Repetitive Surge Current

Data and specifications subject to change without notice.
This product has been designed and qualified for Multiple Level.
Qualification Standards can be found on IR's Web site.

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