



Micro Commercial Components



Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

**GBL4005  
 THRU  
 GBL410**

**4.0 Amp  
 Glass Passivated  
 Single-Phase  
 Rectifiers  
 50 to 1000 Volts**

**Features**

- Marking : type number
- High case dielectric strength
- Glass passivated chip junction
- High surge current capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (NOTE 3)("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

**Maximum Ratings**

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

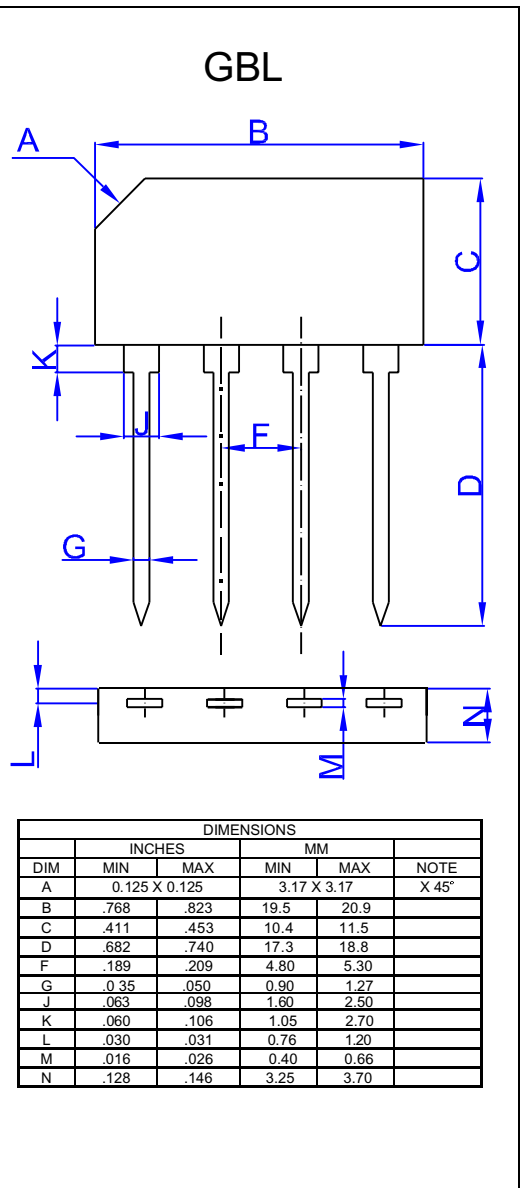
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBL4005	50V	35V	50V
GBL401	100V	70V	100V
GBL402	200V	140V	200V
GBL404	400V	280V	400V
GBL406	600V	420V	600V
GBL408	800V	560V	800V
GBL410	1000V	700V	1000V

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Maximum Average Forward Current	$I_{F(AV)}$	4.0 A 3.0A	$T_C = 50^\circ C^{(1)}$ $T_A = 40^\circ C^{(2)}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, half sine
Rating for fusing	$I^2t$	93A <sup>2</sup> sec	t<8.3ms
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 2.0A;$ $T_A = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0uA 500uA	$T_A = 25^\circ C$ $T_A = 125^\circ C$
Typical Junction Capacitance GBL4005-404 GBL406-410	$C_J$	95pF 40pF	Measured at 1.0MHz, $V_R=4.0V$
Typical thermal resistance per leg	$R \theta_{JA}$ $R \theta_{JL}$	22°C/W 3.5°C/W	

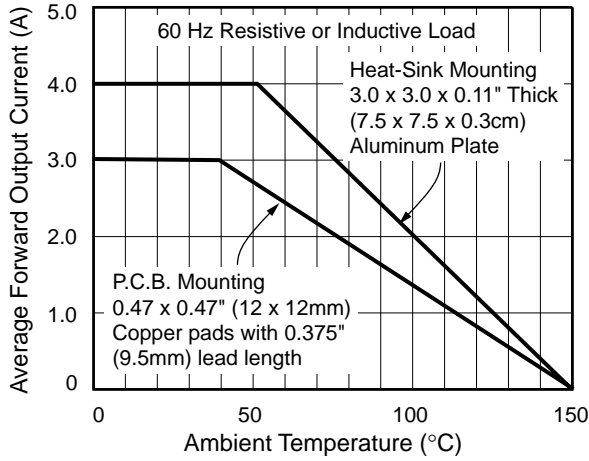
Note:

1. Unit mounted on 3.0x3.0x0.11" thick(7.5x7.5x0.3cm)Al. plate
2. Unit mounted on P.C.B. at 0.375"(9.5mm) lead length and 0.5x0.5"(12x12mm) copper pads
3. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

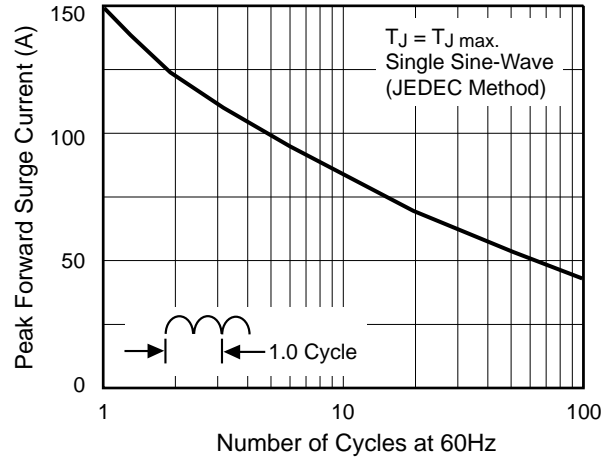


# GBL4005 thru GBL410

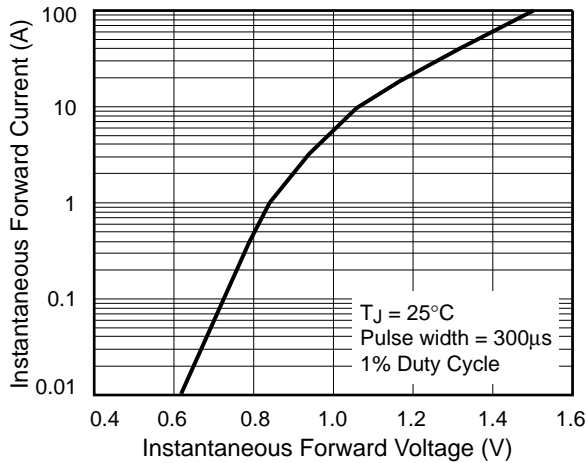
**Fig. 1 – Derating Curves Output Rectified Current**



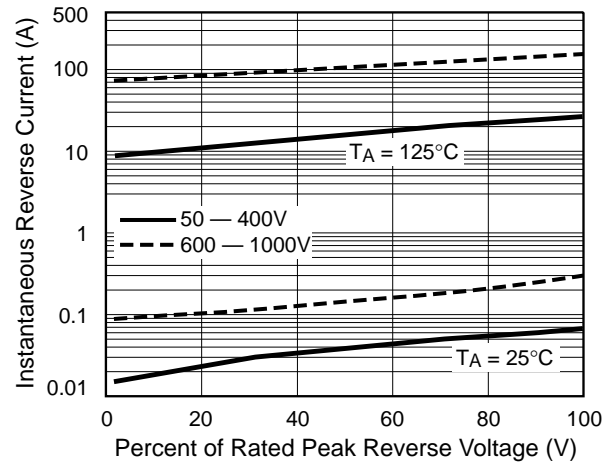
**Fig. 2 -- Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



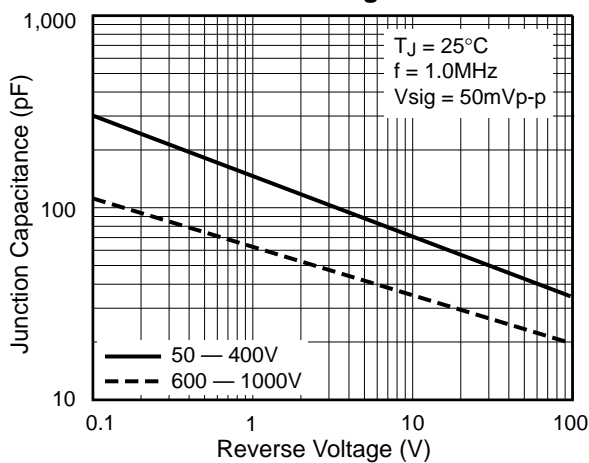
**Fig. 3 – Typical Forward Voltage Characteristics Per Leg**



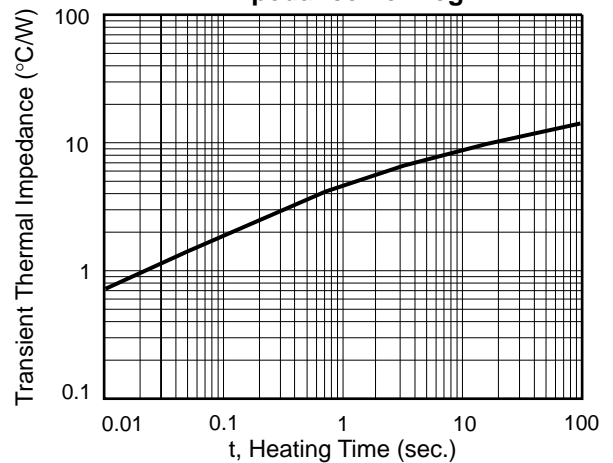
**Fig. 4 – Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 – Typical Junction Capacitance Per Leg**



**Fig. 6 – Typical Transient Thermal Impedance Per Leg**





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## Ordering Information :

Device	Packing
Part Number-BP	Bulk: 4.4Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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