

# GBL4005-BPC01 THRU GBL410-BPC01

## 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

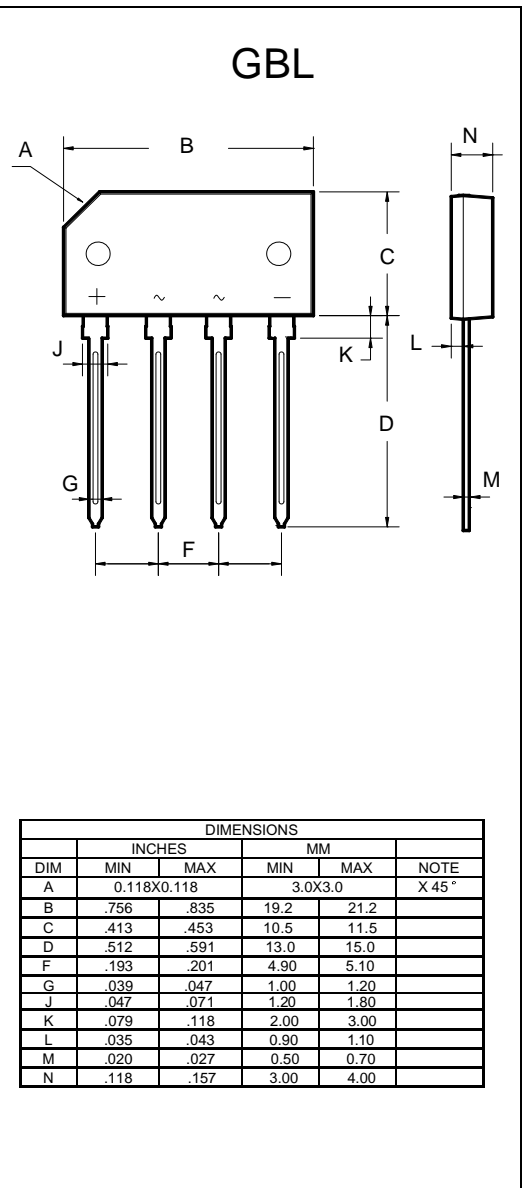
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBL4005-BPC01	50V	35V	50V
GBL401-BPC01	100V	70V	100V
GBL402-BPC01	200V	140V	200V
GBL404-BPC01	400V	280V	400V
GBL406-BPC01	600V	420V	600V
GBL408-BPC01	800V	560V	800V
GBL410-BPC01	1000V	700V	1000V

### 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	$I_{FSM}$	135A	8.3ms, half sine
Rating for fusing	$I^2t$	75.6A <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	

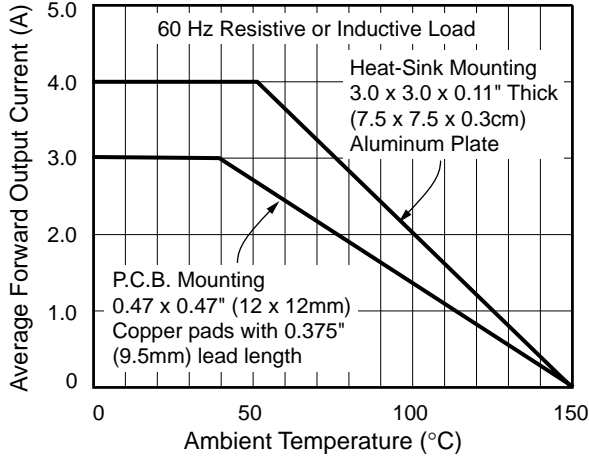
Note:

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

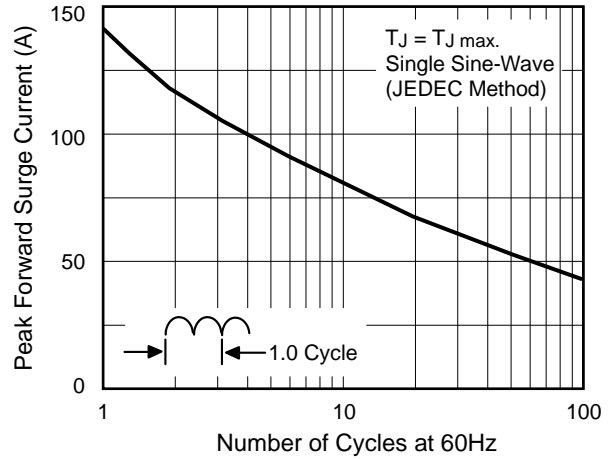


# GBL4005-BPC01 thru GBL410-BPC01

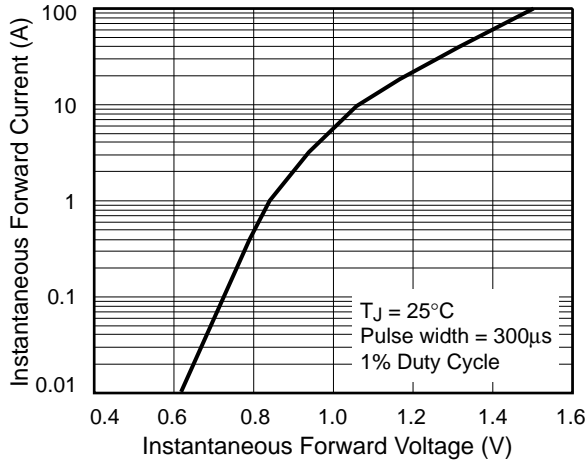
**Fig. 1 – Derating Curves Output Rectified Current**



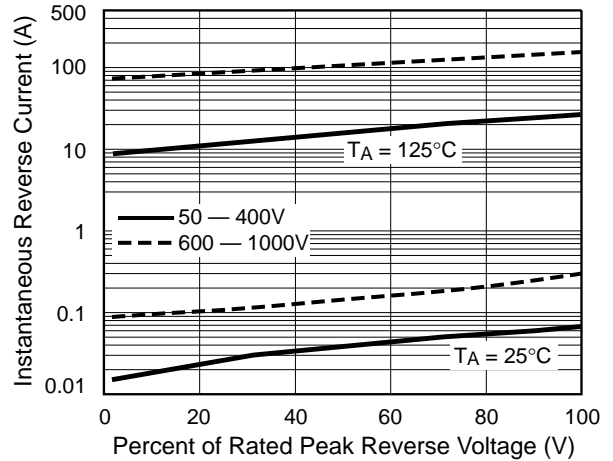
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



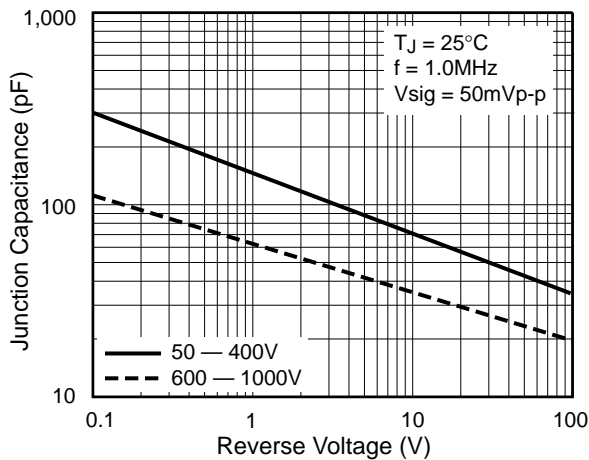
**Fig. 3 – Typical Forward Voltage Characteristics Per Leg**



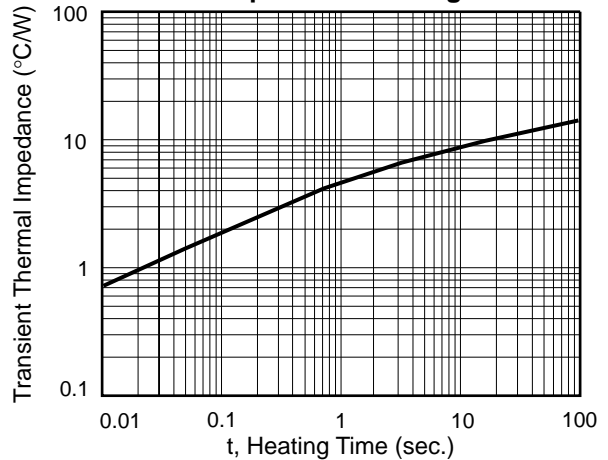
**Fig. 4 – Typical Reverse Leakage Characteristics Per Leg**



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



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





## Ordering Information :

Device	Packing
GBL4005-BPC01 ~ GBL410-BPC01	Bulk: 4.4Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. GBL4005-BPC01 ~GBL410-BPC01-HF

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