



Micro Commercial Components

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GBL005 THRU GBL10

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
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 3) ("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

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

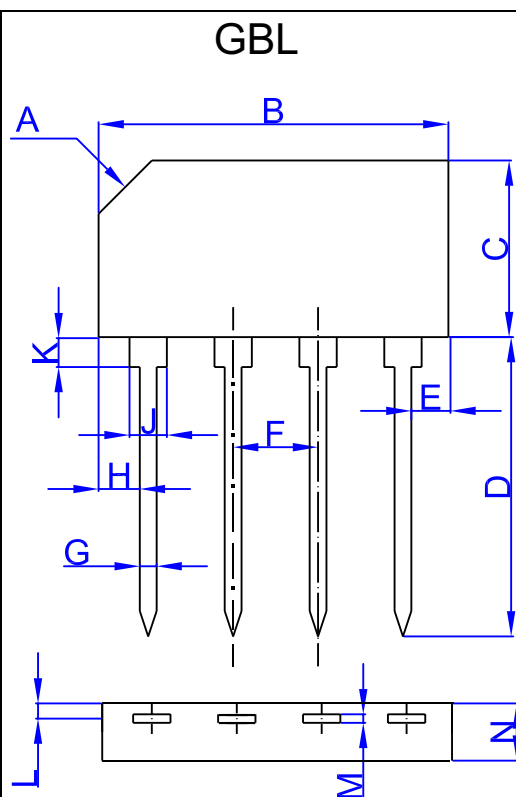
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBL005	50V	35V	50V
GBL01	100V	70V	100V
GBL02	200V	140V	200V
GBL04	400V	280V	400V
GBL06	600V	420V	600V
GBL08	800V	560V	800V
GBL10	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Average Forward Current	$I_{F(AV)}$	4.0 A 3.0A	$T_C = 50^\circ\text{C}^{(1)}$ $T_A = 40^\circ\text{C}^{(2)}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Rating for fusing	I^2t	93A ² sec	$t < 8.3\text{ms}$
Maximum Instantaneous Forward Voltage	V_F	1.1V	$I_{FM} = 4.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0uA 500uA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Typical Junction Capacitance GBL005-04 GBL06-10	C_J	95pF 40pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$
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



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.125	0.125	3.17	3.17	X 45°
B	.815	.825	20.7	20.9	
C	.411	.421	10.4	10.7	
D	.682	.718	17.3	18.2	
E	.075	.098	1.9	2.5	
F	.189	.209	4.8	5.3	
G	.040	.050	1.02	1.27	
H	.075	.098	1.9	2.5	
J	.080	.095	2.03	2.41	
K	.060	.080	1.05	2.03	
L	.030	.040	0.76	1.02	
M	.018	.022	0.46	0.56	
N	.128	.140	3.25	3.56	

Fig. 1 – Derating Curves Output Rectified Current

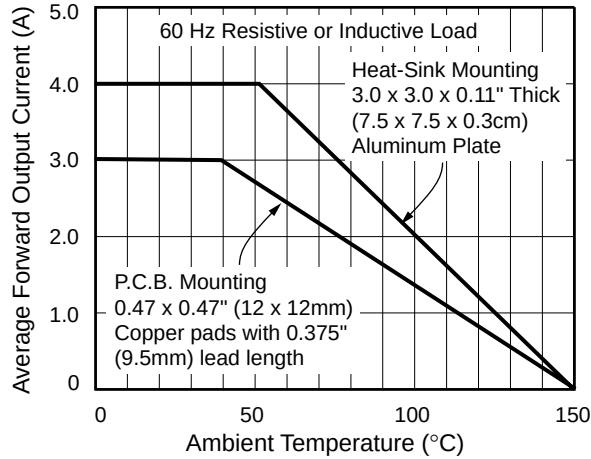


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

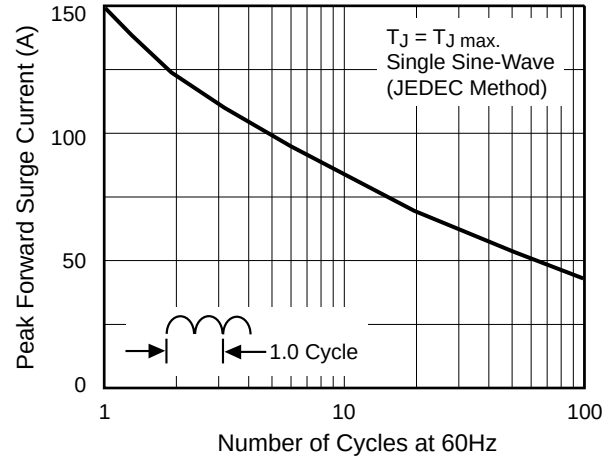


Fig. 3 – Typical Forward Voltage Characteristics Per Leg

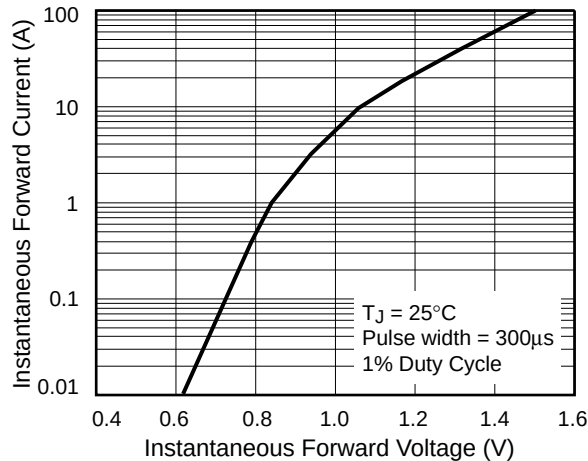


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

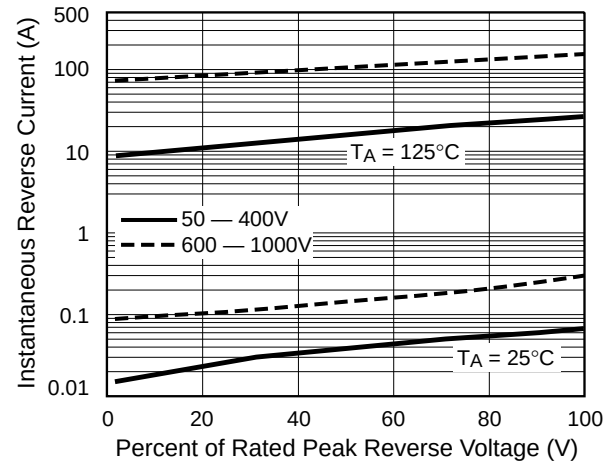


Fig. 5 – Typical Junction Capacitance Per Leg

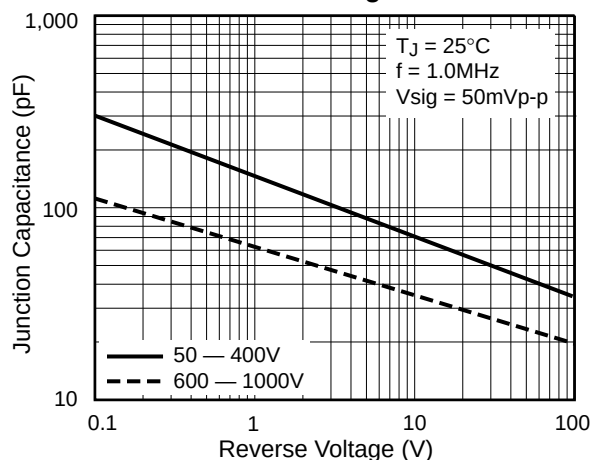
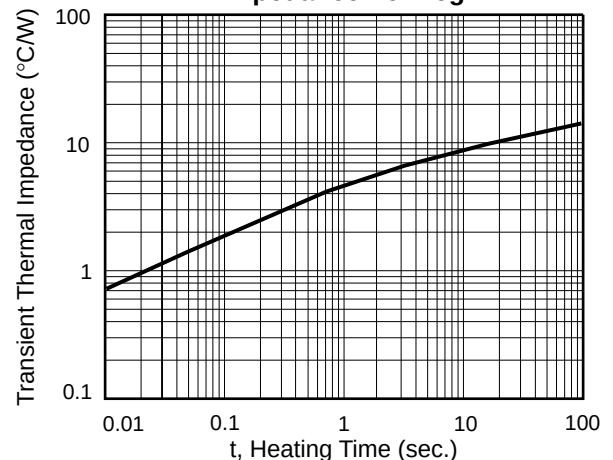


Fig. 6 – Typical Transient Thermal Impedance Per Leg



Ordering Information

Device	Packing
(Part Number)-BP	Bulk;20pcs/Tube

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