	E502650

4 Amp Bridge Rectifier 50 to 1000 Volts

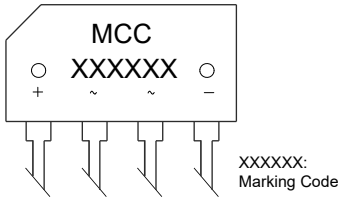
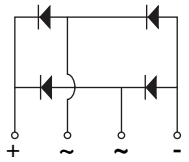
Features

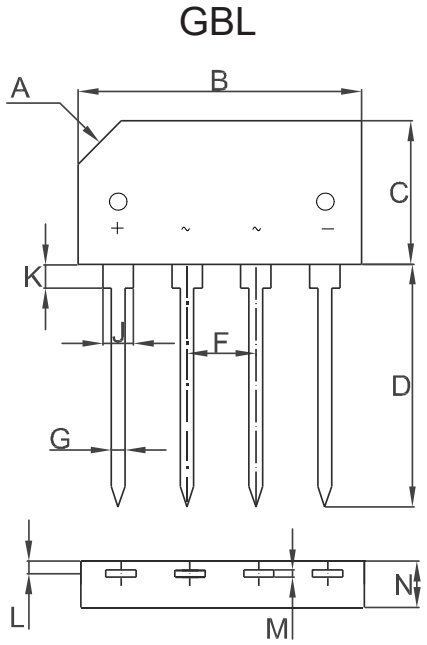
- Halogen Free. “Green” Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		GBL 4005 -BPC01	GBL 401 -BPC01	GBL 402 -BPC01	GBL 404 -BPC01	GBL 406 -BPC01	GBL 408 -BPC01	GBL 410 -BPC01	
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ T_A=25°C	$I_{F(AV)}$	4							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	150							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		250							
I^2t Rating for Fusing @1ms≤t≤8.3ms	I^2t	93							A^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2							KV

Part Number	Marking Code
GBL4005-BPC01	GBL4005
GBL401-BPC01	GBL401
GBL402-BPC01	GBL402
GBL404-BPC01	GBL404
GBL406-BPC01	GBL406
GBL408-BPC01	GBL408
GBL410-BPC01	GBL410

Marking Diagram	Internal Structure
	



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.118 X 0.118		3.0 X 3.0		X 45°
B	0.756	0.835	19.20	21.20	
C	0.413	0.453	10.50	11.50	
D	0.512	0.591	13.00	15.00	
F	0.193	0.201	4.90	5.10	
G	0.039	0.047	1.00	1.20	
J	0.047	0.071	1.20	1.80	
K	0.079	0.118	2.00	3.00	
L	0.035	0.043	0.90	1.10	
M	0.020	0.027	0.50	0.70	
N	0.118	0.157	3.00	4.00	

Note:
1.Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2.High temperature solder exemption applied, see EU directive annex 7a.

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case			8		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient			40		°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=2A;T_J=25°C			1.0	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			5 100	μA
Junction Capacitance	C_J	V_R=4V;f=1MHz;T_J=25°C		45		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

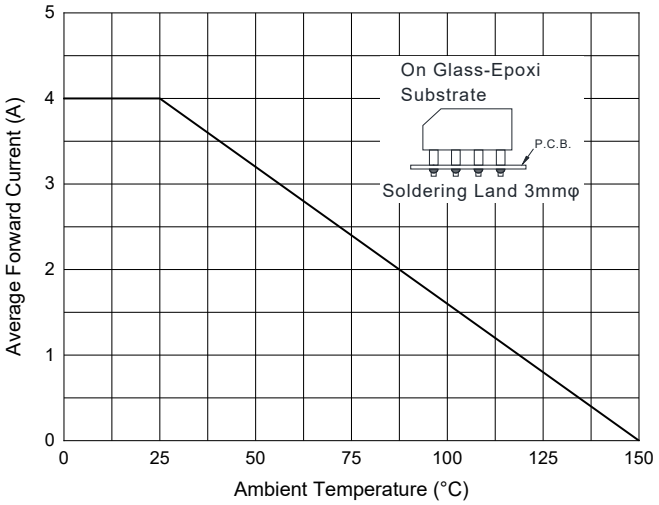


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

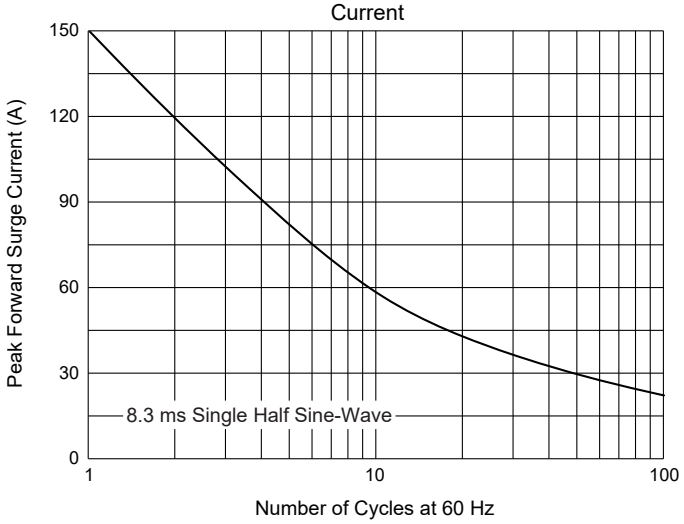


Fig. 3 - Typical Forward Characteristics

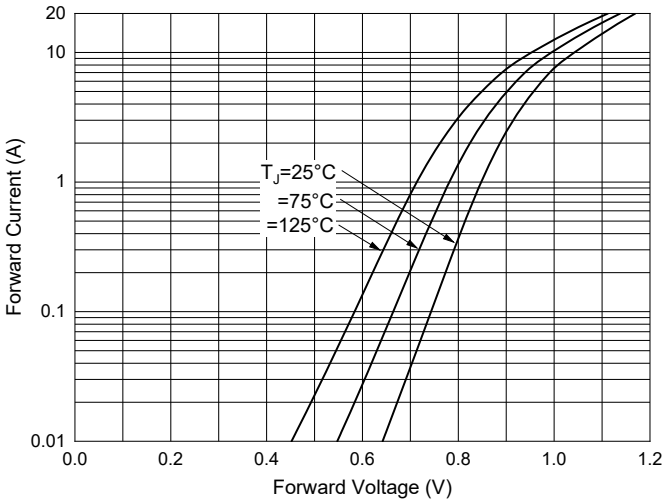


Fig. 4 - Typical Reverse Leakage Characteristics

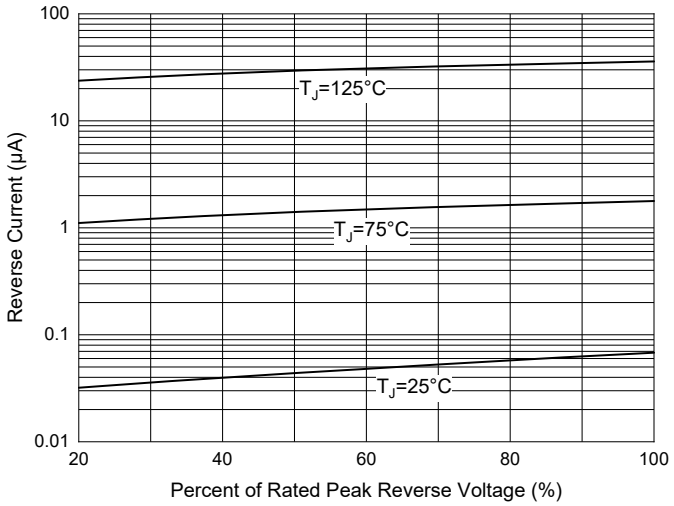
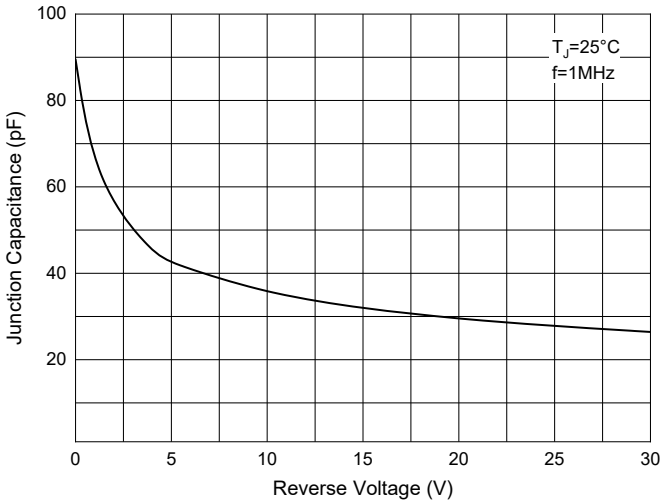


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-BPC01	Bulk:22pcs/Tube,1100pcs/Box,4400pcs/Carton

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