



Glass Passivated Single Phase Bridge Rectifiers

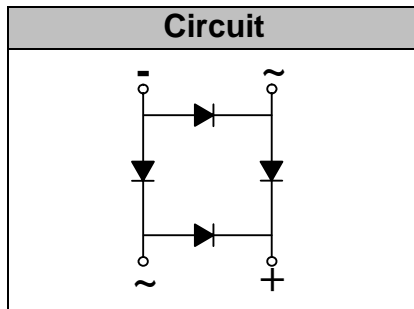
Reverse Voltage 200 to 1000V
Forward Current 50 Amp

Features

- Glass passivated die construction
- Integrally molded heatsink provides Very low thermal resistance for Maximum heat dissipation
- The plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High temperature soldering guaranteed: 260°C /10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

Case: Molded plastic case
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Marked on Body
Mounting Position: Any



Module Type

TYPE	VRRM	V _{RSM}
GBPC5002W	200V	300V
GBPC5004W	400V	500V
GBPC5006W	600V	700V
GBPC5008W	800V	900V
GBPC5010W	1000V	1100V

Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

Symbol	Conditions	Values	Units
I _{F(AV)}	Maximum average forward output rectified current T _c = 70°C	50	A
I _{FSM}	Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	450	A
i ² t	Rating for fusing (t < 8.3ms)	840	A ² s
Visol	a.c. 50HZ; r.m.s.; 1min	2500	V
R _{θJC}	Maximum thermal resistance ⁽¹⁾	0.7	°C/W
T _j , T _{STG}	Operating Junction and storage temperature range	-50 to 150	°C
Weight	Approximate Weight	15	g

Electrical Characteristics (TA = 25°C unless otherwise noted)

Symbol	Conditions	Values	Units	
V _F	Maximum Instantaneous Forward Voltage per leg I _{FM} = 25A	1.1	V	
I _R	Maximum DC reverse current at rated DC blocking voltage per leg	TA = 25°C TA = 125°C	5.0 500	μA

Notes: (1) Unit case mounted on Al plate heatsink
(2) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with M5 screw

Performance Curves

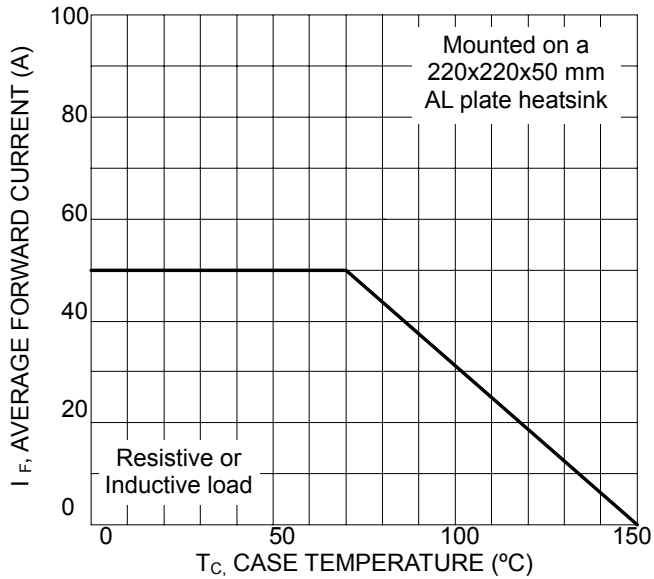


Fig. 1 Forward Current Derating Curve

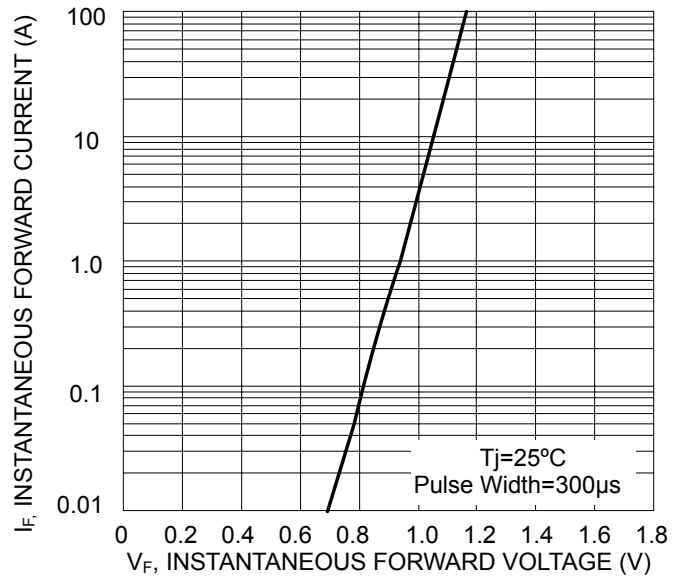


Fig. 2 Typical Forward Characteristics (per element)

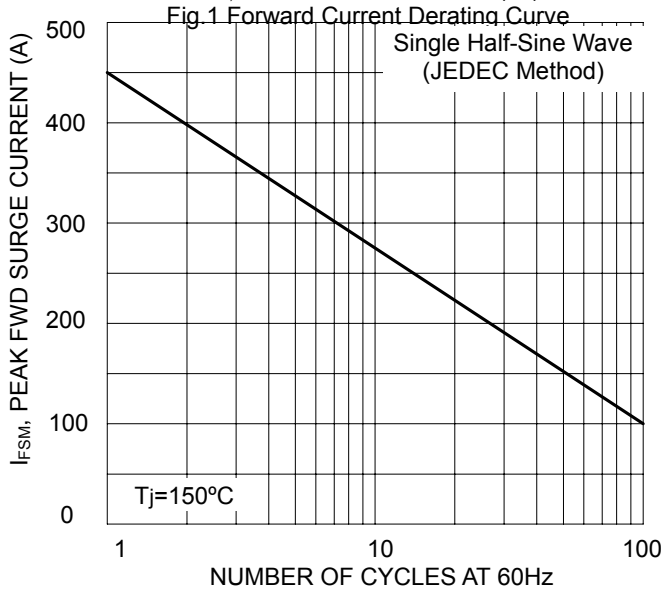


Fig. 3 Max Non-Repetitive Surge Current

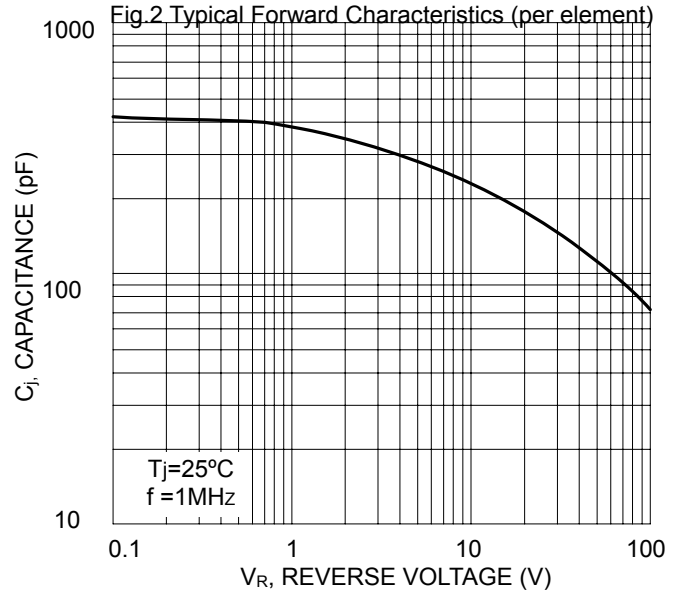


Fig. 4 Typical Junction Capacitance (per element)

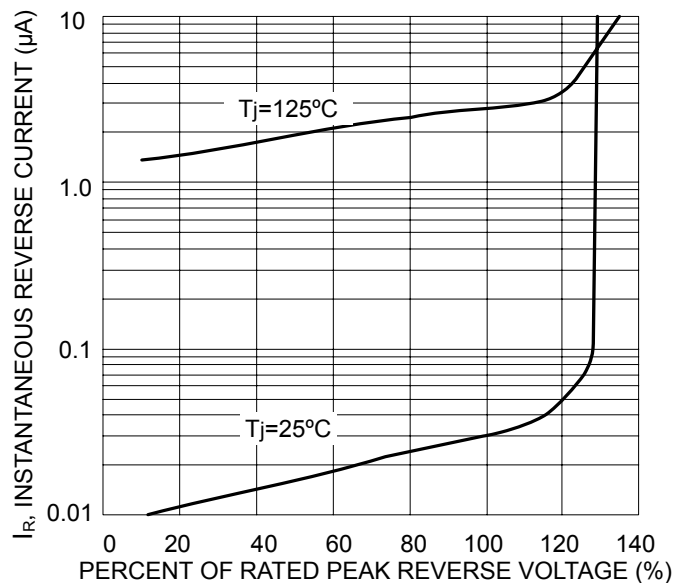
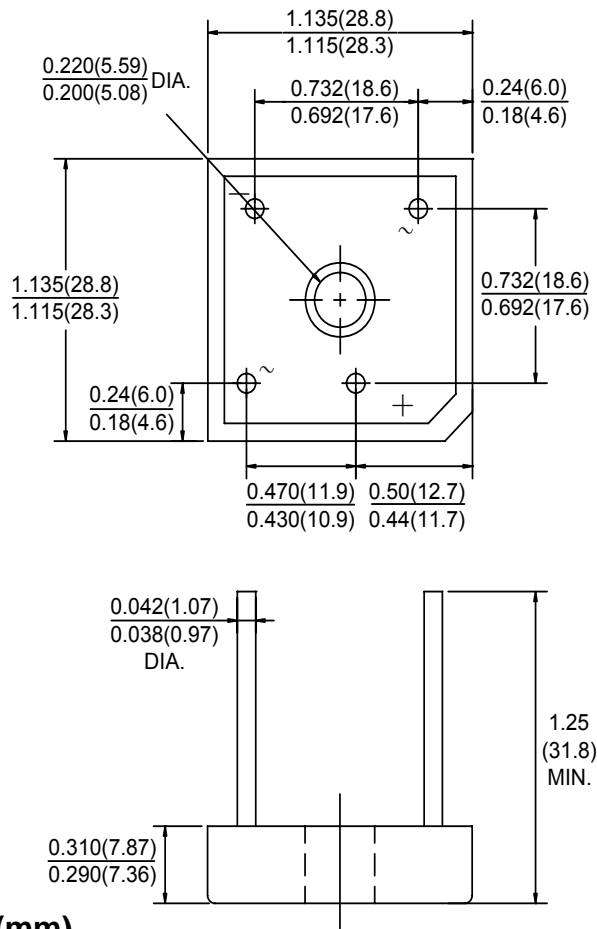


Fig. 5 Typical Reverse Characteristics (per element)

Package Outline Information

CASE: GBPC-W



Dimensions in inches (mm)