


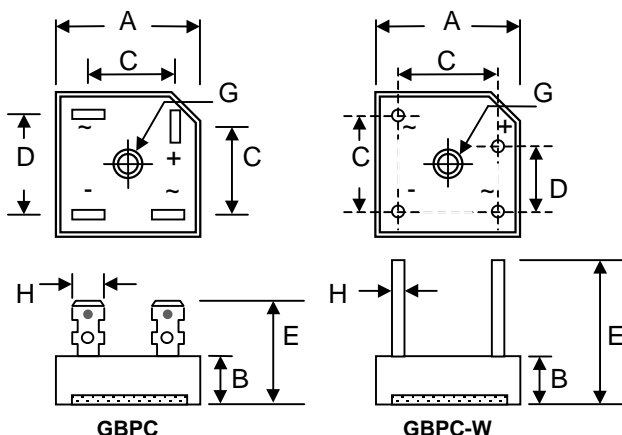
50A GLASS PASSIVATED HIGH CURRENT SINGLE-PHASE BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
-  Recognized File # E157705

Mechanical Data

- Case: Molded Plastic with Heatsink, Available in Both Low Profile and Standard Case
- Terminals: Plated Faston Lugs or Wire Leads, Add "W" Suffix to Indicate Wire Leads
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (GBPC); 18 grams (GBPC-W)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



	GBPC Low Profile / Standard		GBPC-W Low Profile / Standard	
Dim	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	7.50 / 10.97	8.50 / 11.23	7.50 / 10.97	8.50 / 11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	19.08 / 22.86	21.58 / 25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø
All Dimension in mm				

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	GBPC50										Unit
		00	01	02	04	06	08	10	12	14	16	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	1200	1400	1600	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	840	980	1120	V
Average Rectified Output Current @T _C = 50°C	I _O	50										A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	450										A
Forward Voltage per leg @I _F = 25A	V _{FM}	1.1										V
Peak Reverse Current @T _C = 25°C At Rated DC Blocking Voltage @T _C = 125°C	I _{RM}	5.0 500										μA
I ² t Rating for Fusing (t < 8.3ms)	I ² t	800										A ² s
Typical Junction Capacitance (Note 1)	C _j	400										pF
Typical Thermal Resistance per leg (Note 2)	R _{θJC}	1.0										°C/W
RMS Isolation Voltage from Case to Leads	V _{ISO}	2500										V
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150										°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

2. Mounted on 229 x 152 x 127mm Al. finned plate.



GAIA TECH

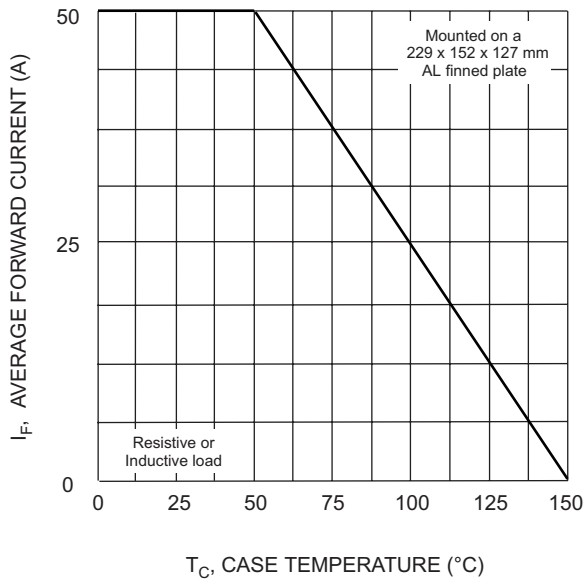


Fig. 1 Forward Current Derating Curve

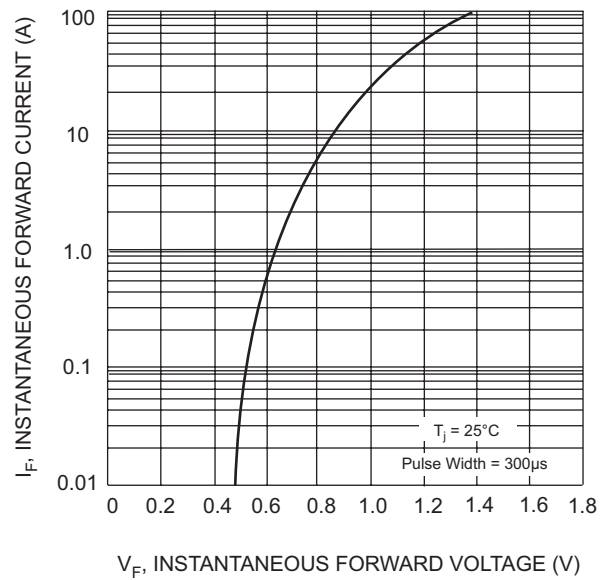


Fig. 2 Typical Forward Characteristics (per element)

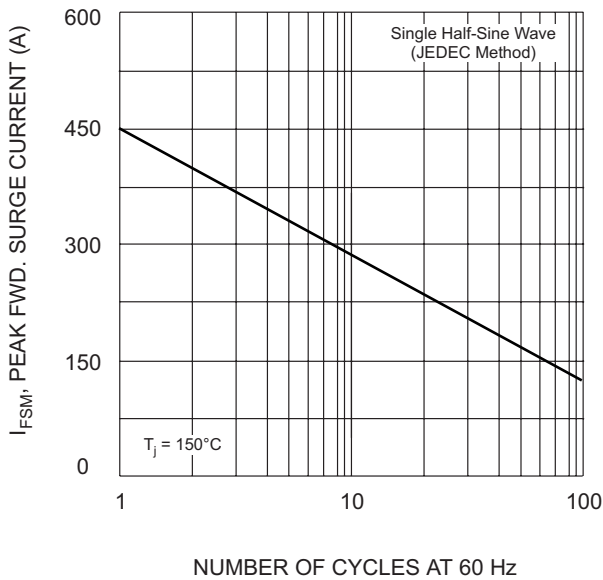


Fig. 3 Max Non-Repetitive Surge Current

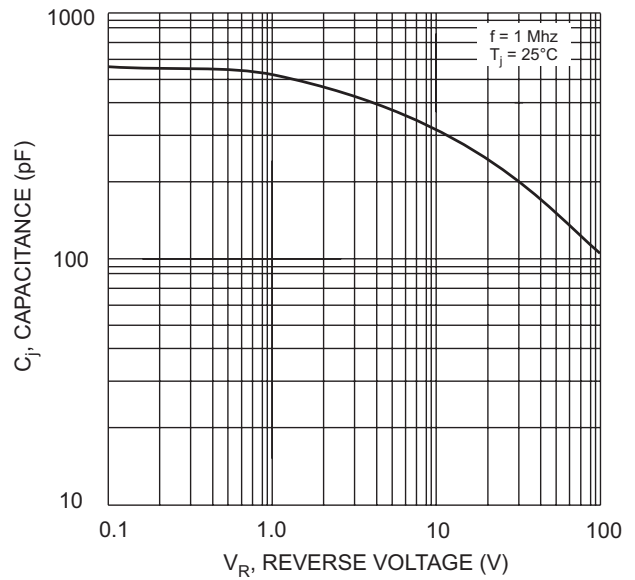


Fig. 4 Typical Junction Capacitance (per element)

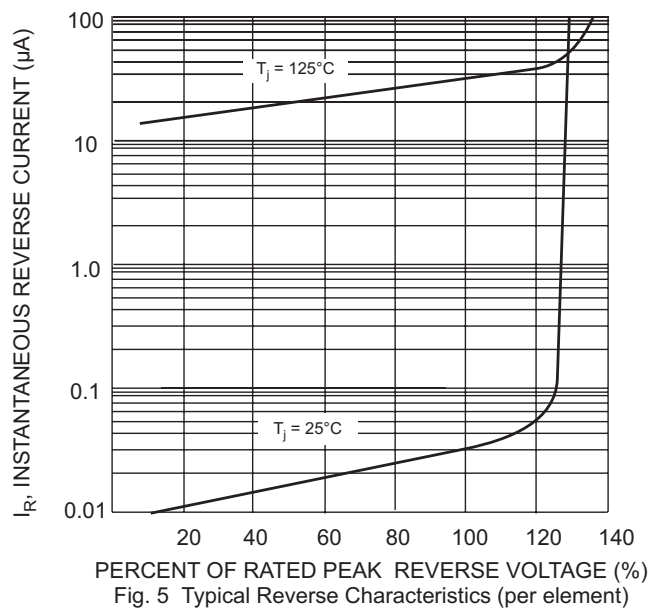


Fig. 5 Typical Reverse Characteristics (per element)