

Single Phase Glass Passivated Bridge Rectifier

V_{RRM} - 1000 to 1600 V

I_o - 15 A

FEATURES

- ♦Glass passivated chip
- ♦Low reverse leakage current
- ♦High surge current capability

APPLICATIONS

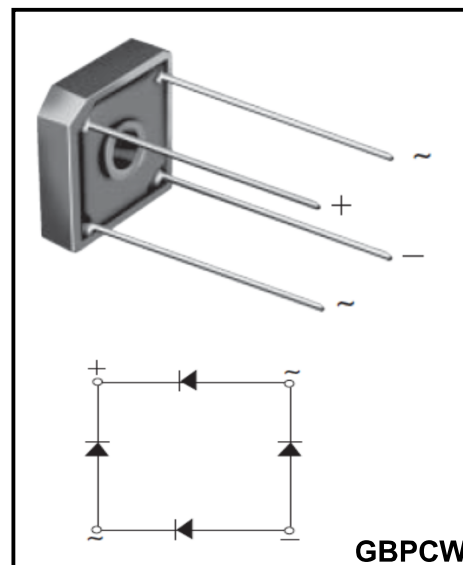
- ♦Electric welder
- ♦Industrial power supply
- ♦Inverter
- ♦Uninterruptible power supply

MECHANICAL DATA

- ♦Case:GBPC-W
- ♦Polarity: Polarity symbols being marked on body
- ♦Mounting torque:12.0 kgf.cm max
- ♦Weight: About12 grams

Maximum Ratings @ $T_a = 25^{\circ}\text{C}$ unless otherwise noted

Parameter	Symbols	GBPC1510W	GBPC1512W	GBPC1516W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	1200	1600	V
Maximum RMS voltage	V_{RWM}	700	840	1120	V
Maximum DC Blocking Voltage	V_{RMS}	1000	1200	1600	V
Average rectified output current with heatsink, $T_c = 85^{\circ}\text{C}$	I_o	15			A
Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200			A
Rating for fusing $1\text{ms} < t < 8.3\text{ms}$ $T_j = 25^{\circ}\text{C}$, Rating of per diode	I^2t	373			A^2S
Operating Temperature Range	T_J	-55 to +150			$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150			$^{\circ}\text{C}$
Dielectric strength terminals to case AC 1 minute	V_{dis}	2.5			KV
Peak Forward Voltage $I_F = 7.5\text{A}$	V_F	1.1			V
Peak Reverse Current $T_j = 25^{\circ}\text{C}$ $V_R = V_{RRM}$, Pulse measurement Rating of per diode $T_j = 125^{\circ}\text{C}$	I_R	5 500			μA
Junction to ambient thermal resistance, without heatsink	$R_{\theta JA}$	26			$^{\circ}\text{C/W}$
Junction to case thermal resistance, with heatsink	$R_{\theta JC}$	1.5			$^{\circ}\text{C/W}$



Characteristic Curve

FIG 1. Derating Curve For Output Rectified Current

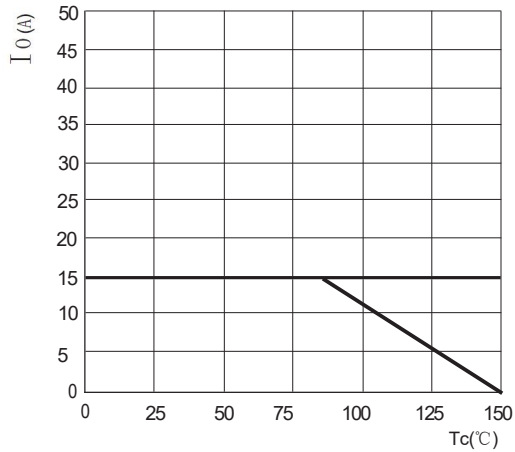


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

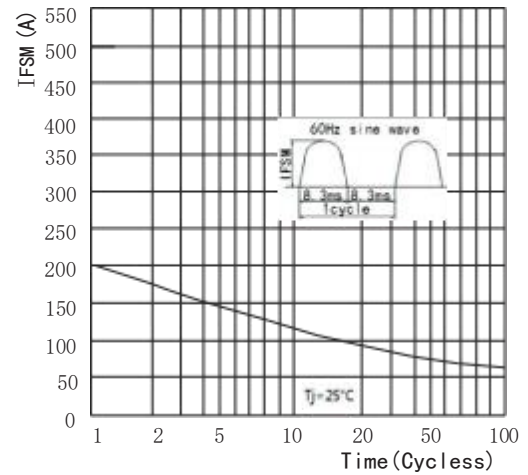


FIG3. Typical Reverse Characteristics Per Bridge Element

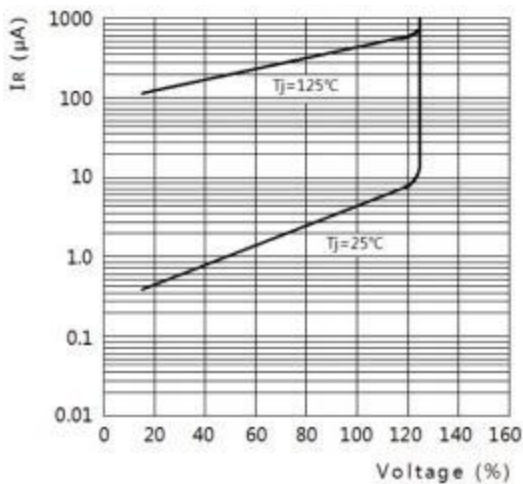
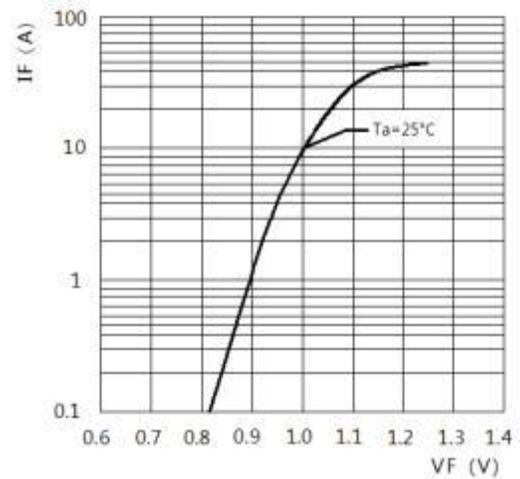
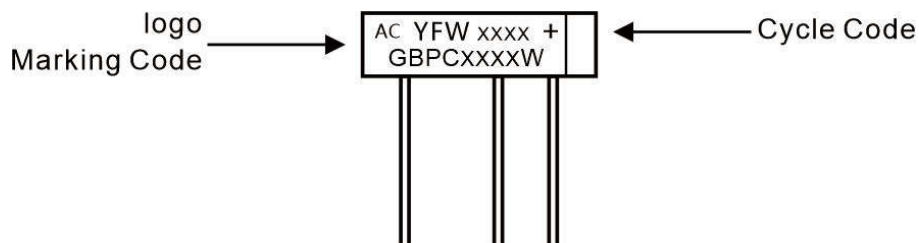


FIG4. Typical Forward Characteristics Per Bridge Element



Marking Diagram



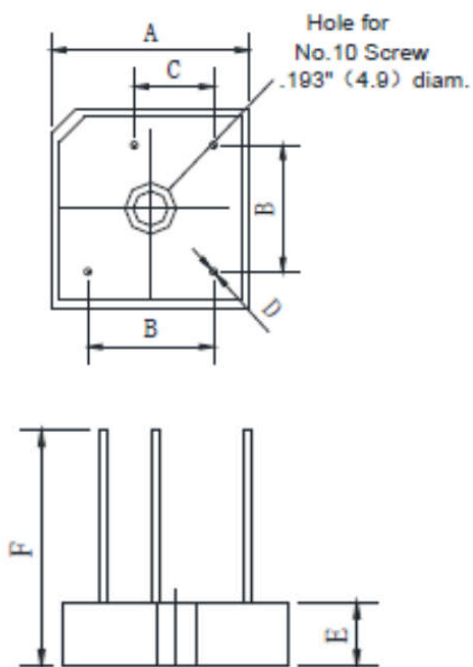
Ordering information

Package	Packing Description	Packing Quantity
GBPCW	bulk	50PCS/Box 500PCS/Carton

Package Dimensions

GBPCW

Dim.	Millimeter(mm)		DimensionsinInch	
	Min.	Max.	Min.	Max.
A	28.2	28.8	1.11	1.13
B	17.1	19.1	0.67	0.75
C	10.4	12.4	0.41	0.49
D	0.95	1.05	0.04	0.04
E	7.6	8.2	0.30	0.32
F	30	/	1.18	/



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