

Single Phase Glass Passivated Bridge Rectifier

Reverse Voltage - 600V to 1200V

Forward Current - 50 A

FEATURES

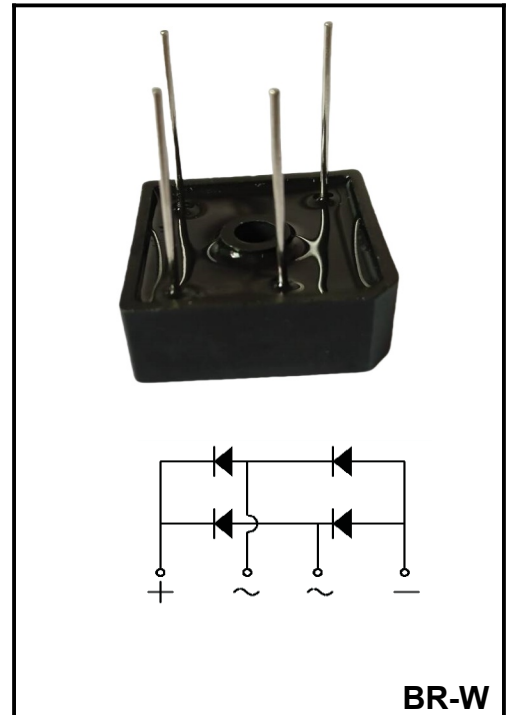
- ◆Glass passivated chip
- ◆Low reverse leakage current
- ◆High surge current capability

Applications

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

MECHANICAL DATA

- ◆Case:BR-W
- ◆Polarity: Polarity symbols being marked on body
- ◆Mounting torque: 12.0 kgf.cm max
- ◆Weight: About20 grams



Maximum Ratings @ Ta = 25°C unless otherwise noted

Parameter	Symbols	BR5006W	BR5008W	BR5010W	BR5012W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	1000	1200	V
Maximum RMS voltage	V_{RMS}	420	560	700	840	V
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	1200	V
Average rectified output current with heatsink $T_c=85^{\circ}C$	$I_{(AV)}$	50				A
Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	500				A
Rating for fusing $1ms < t < 8.3ms$ $T_j=25^{\circ}C$, Rating of per diode	I^2t	1037				A ² s
Forward Voltage $I_f=25A$	V_F	1.1				V
Peak Reverse Current $V_R=V_{RRM}$, Pulse measurement Rating of per diode	I_R	5				μA
		500				
Dielectric strength terminals to case AC 1 minute	V_{dis}	2.5				KV
Junction to ambient thermal resistance, without heatsink	$R_{\theta JA}$	26				$^{\circ}C/W$
Junction to case thermal resistance, with heatsink	$R_{\theta JC}$	1.0				$^{\circ}C/W$
Storage Temperature	T_{stg}	-55 ~ 150				$^{\circ}C$
Openrating junction Temperature	T_j	-55 ~ +150				$^{\circ}C$

Characteristic Curve

FIG1. Derating Curve For Output Rectified Current

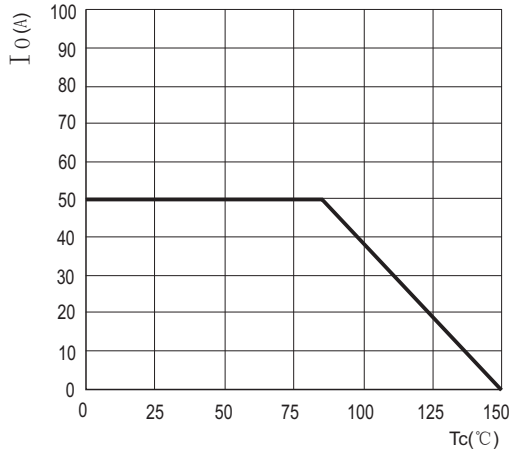


FIG2. Maximum NonRepetitive Peak Forward Surge Current Per Bridge Element

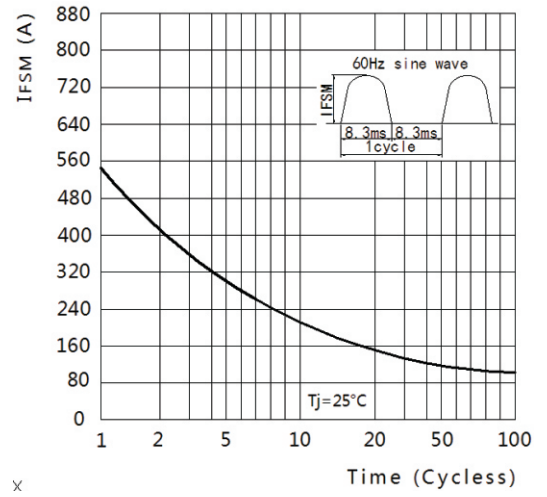


FIG3. Typical Reverse Characteristics Per Bridge Element

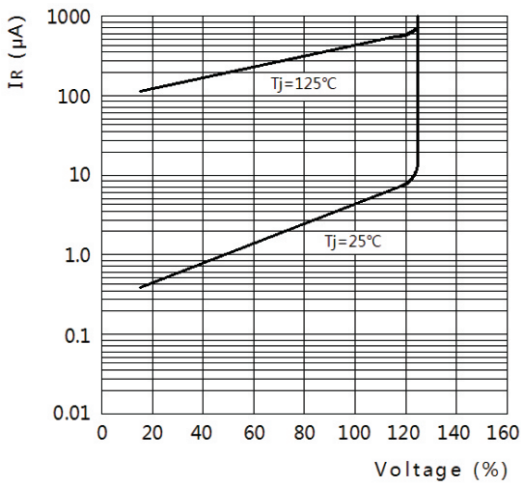
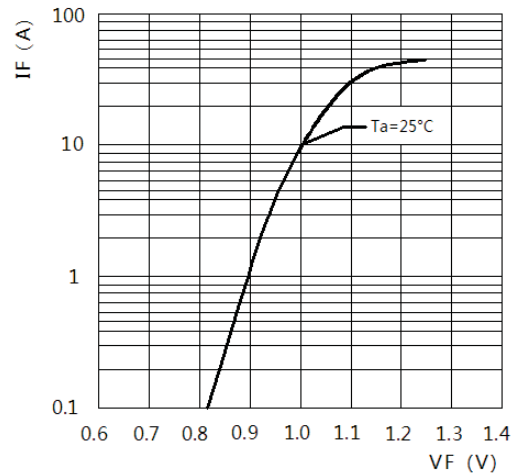
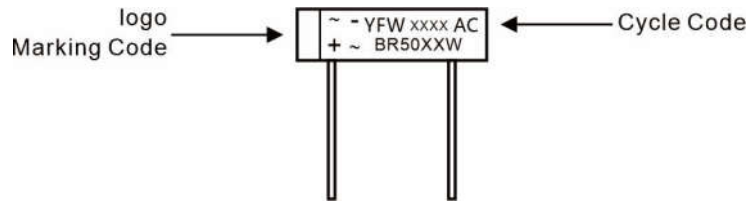


FIG4. Typical Forward Characteristics Per Bridge Element



Marking Diagram



Ordering information

Package	Packing Description	Packing Quantity
BR-W	bulk	50PCS/Box 500PCS/Carton

Package Dimensions

BR-W

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	28.2	28.8	1.11	1.13
B	17.1	19.1	0.673	0.752
C	10.4	12.4	0.409	0.488
D	0.95	1.05	0.037	0.041
E	10.8	11.2	0.425	0.441
F	30	30.5	1.18	1.2
G	5	5.5	0.197	0.217

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