

Single Phase Glass Passivated Bridge Rectifier

V_{RRM} - 1000V to 1600V

$I_{(AV)}$ - 50 A

FEATURES

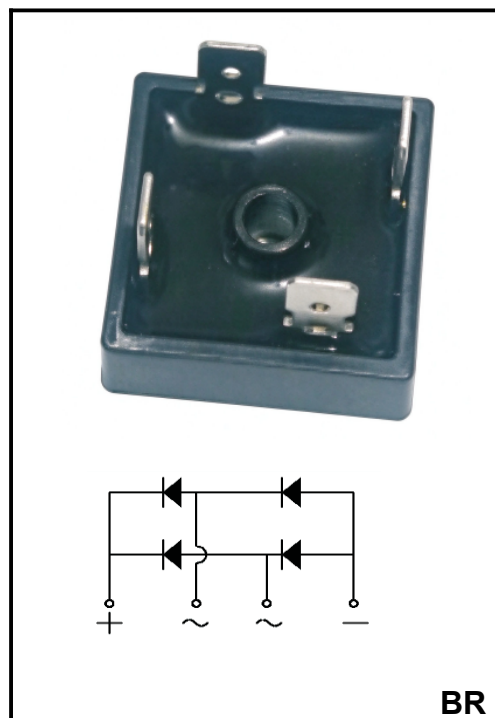
- ◆Glass passivated chip
- ◆Low reverse leakage current
- ◆High surge current capability

APPLICATIONS

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

MECHANICAL DATA

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



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

Parameter	Symbols	MB5010	MB5012	MB5014	MB5016	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	1200	1400	1600	V
Maximum RMS voltage	V_{RMS}	700	840	980	1120	V
Maximum DC Blocking Voltage	V_{DC}	1000	1200	1400	1600	V
Average rectified output current with heatsink $T_c=85^{\circ}\text{C}$	$I_{(AV)}$	50				A
Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	400				A
Rating for fusing $1\text{ms} < t < 8.3\text{ms}$ $T_j=25^{\circ}\text{C}$, Rating of per diode	I^2t	664				A^2s
Forward Voltage $I_F=25\text{A}$	V_F	1.1				V
Peak Reverse Current $V_R=V_{RRM}$, Pulse measurement Rating of per diode	I_R	5 500				μA
Dielectric strength terminals to case AC 1 minute	V_{dis}	2.5				KV
Junction to ambient thermal resistance, without heatsink	$R_{\theta JA}$	26				$^{\circ}\text{C/W}$
Junction to case thermal resistance, with heatsink	$R_{\theta JC}$	1.0				$^{\circ}\text{C/W}$
Storage Temperature	T_{stg}	$-55 \sim 150$				$^{\circ}\text{C}$
Operating junction Temperature	T_j	$-55 \sim +150$				$^{\circ}\text{C}$

Characteristic Curve

FIG1. Derating Curve For Output Rectified Current

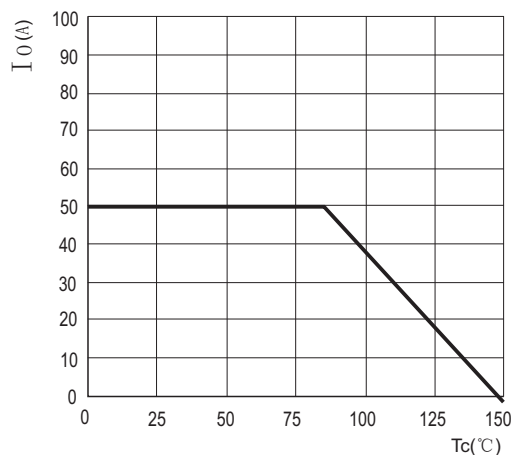


FIG2. Maximum NonRepetitive Peak Forward Surge Current Per Bridge Element

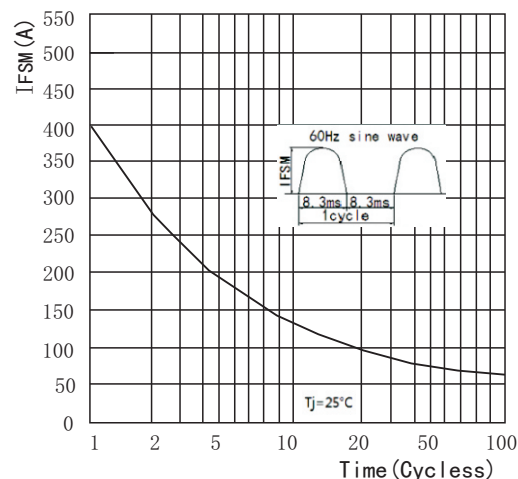


FIG3. Typical Reverse Characteristics Per Bridge Element

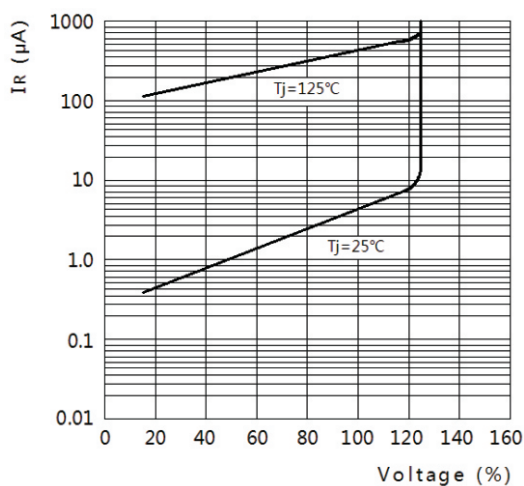
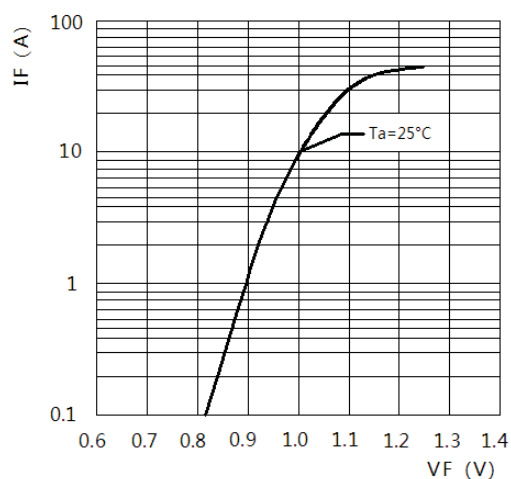
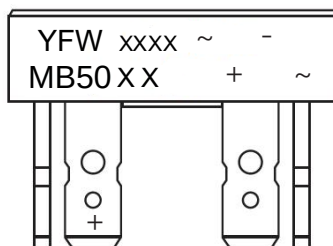


FIG4. Typical Forward Characteristics Per Bridge Element



Marking Diagram

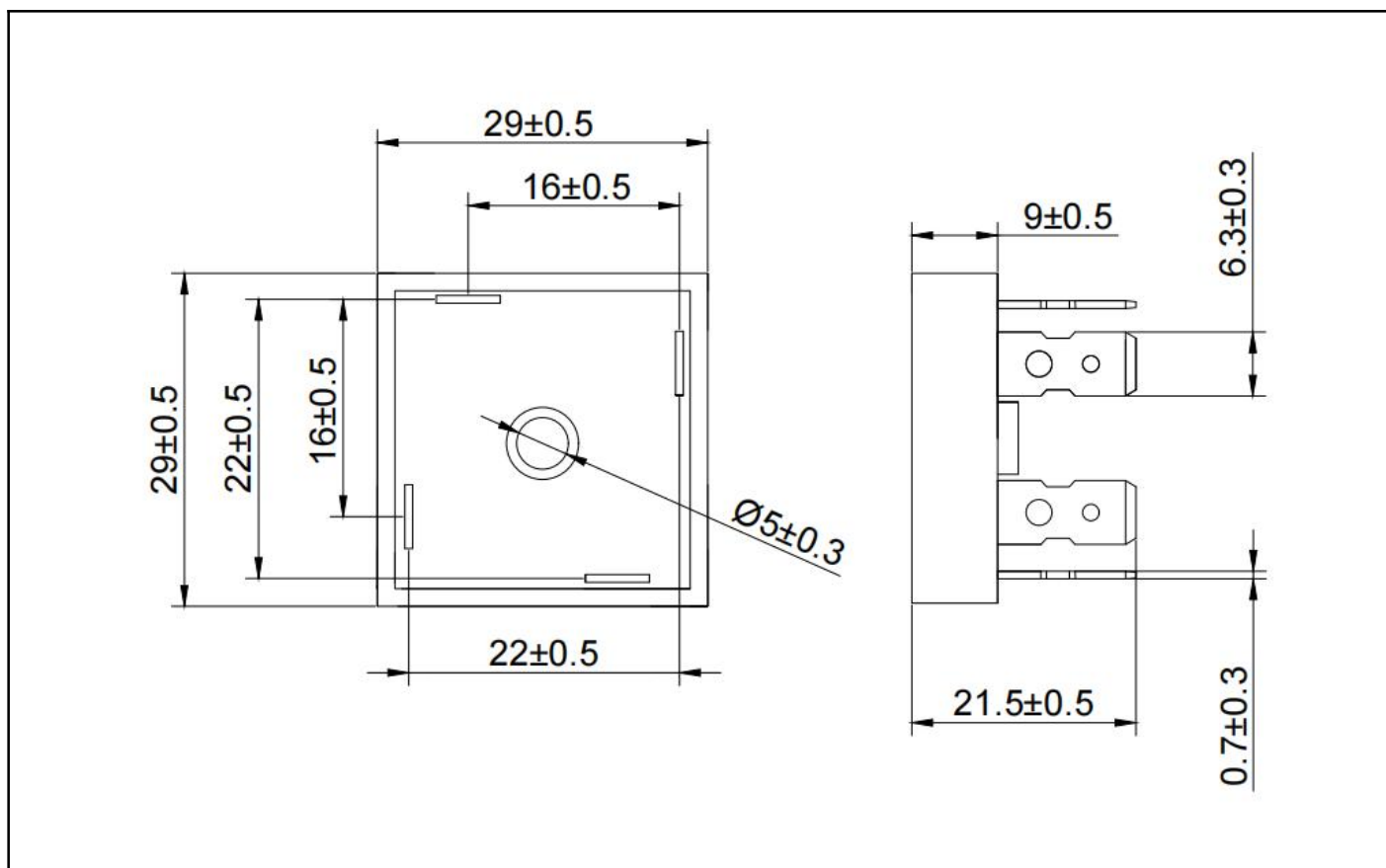


Ordering information

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

Package Dimensions

MB



Disclaimer

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.