

Three Phase Glass Passivated Bridge Rectifier

V_{RRM} - 1000 to 1600V

I_(AV) - 50A

FEATURES

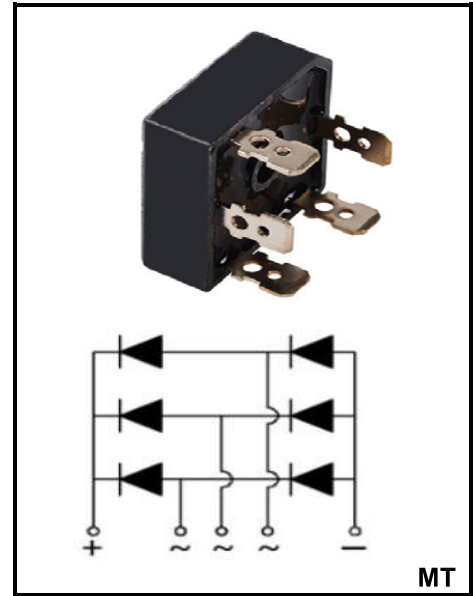
- ◆ Glass passivated chip
- ◆ Low reverse leakage current
- ◆ High surge current capability

APPLICATIONS

- ◆ Frequency converter
- ◆ Industrial power supply

MECHANICAL DATA

- ◆ Case: MT
- ◆ Polarity: Polarity symbols being marked on body
- ◆ Mounting torque: 12.0kgf.cm max
- ◆ Weight: About 18 grams



Maximum Ratings @ Ta = 25°C unless otherwise noted

PARAMETER		SYMBOL	MT5010	MT5012	MT5016	UNIT
Maximum recurrent peak reverse voltage		V_{RRM}	1000	1200	1600	V
Average rectified output current	with heatsink, T _c = 85°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°C, Rating of per diode		I²t	1037			A²s
Dielectric strength, terminals to case AC 1 minute		V_{dis}	2.5			KV
Peak Forward Voltage I _F = 25A		V_F	1.1		1.2	V
Peak Reverse Current V _R = V _{RRM} , Pulse measurement Rating of per diode	T _j = 25°C	I_R	5			μA
	T _j = 125°C		500			
Junction to ambient thermal resistance, without heatsink		R_{θJA}	26			°C/W
Junction to case thermal resistance, with heatsink		R_{θJC}	0.8			°C/W
Junction temperature		T_J	-55 ~ +150			°C
Storage temperature		T_{STG}	-55 ~ +150			°C

Characteristic Curve

FIG1. Derating Curve For Output Rectified Current

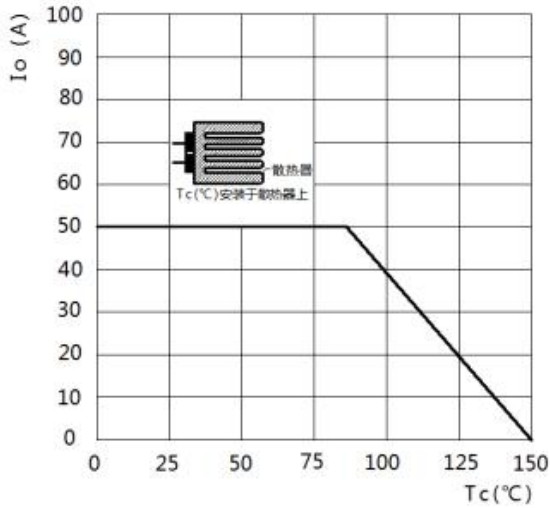


FIG3. Typical Reverse Characteristics Per Bridge Element

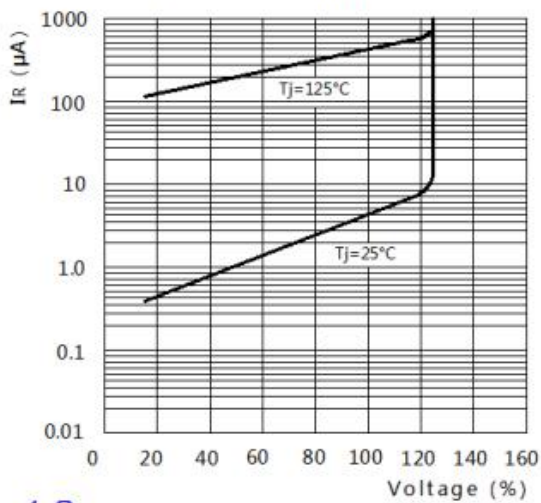


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

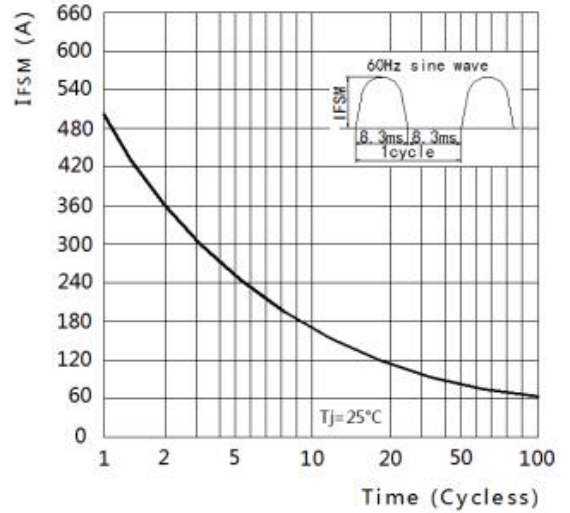
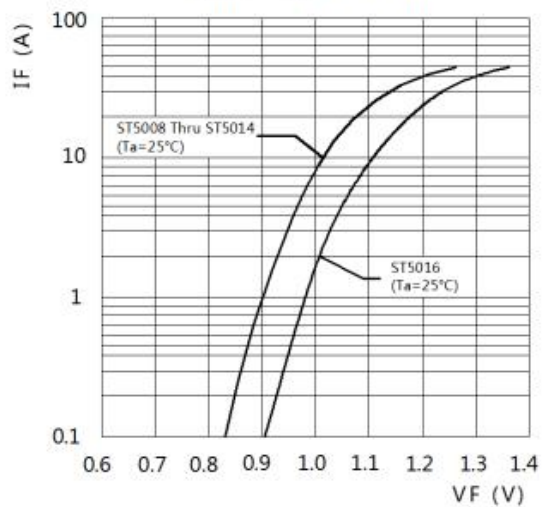
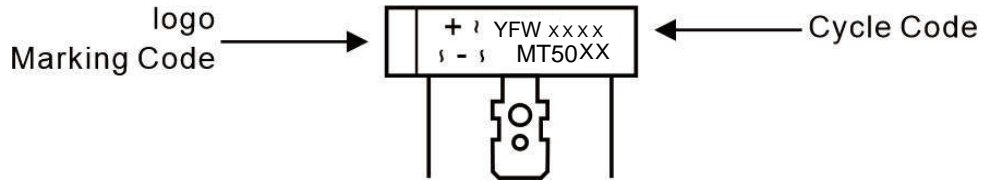


FIG4. Typical Forward Characteristics Per Bridge Element



Marking Diagram



Ordering information

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

Package Dimensions

MT

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	23.1	24.1	0.91	0.95
B	23.1	24.1	0.91	0.95
C	28.2	28.8	1.11	1.13
D	16	17	0.63	0.67
E	22	24	0.87	0.94
F	9.4	10	0.37	0.39
G	6.2	6.4	0.24	0.25
H	0.75	0.85	0.03	0.03

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.