

Glass Passivated Three Phase Rectifier Bridge

$V_{RRM} = 800\text{ V} - 1800\text{ V}$

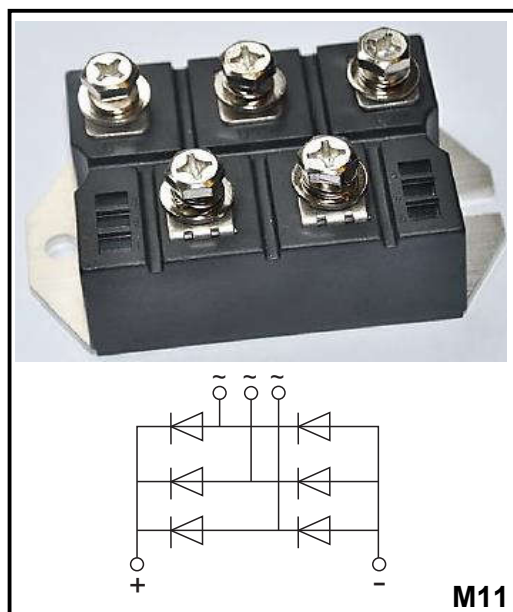
$I_D = 200\text{ A}$

Applications

- ◆ Three phase rectifiers for power supplies
- ◆ Rectifiers for DC motor field supplies
- ◆ Battery charger rectifiers
- ◆ Input rectifiers for variable frequency drives

Features

- ◆ Three phase bridge rectifier
- ◆ Blocking voltage: 800 to 1800V
- ◆ Heat transfer through aluminum oxide DCB ceramic isolated metal baseplate
- ◆ Glass passivated chip



Module Type

Parameter	Symbols	MDS200-08	MDS200-12	MDS200-16	MDS200-18	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800V	1200V	1600V	1800V	V
Maximum RMS voltage	V_{RMS}	900V	1300V	1700V	1900V	V

Maximum Ratings

Symbol	Conditions	Values	Units
I_D	$T_c=100^\circ\text{C}$	200	A
I_{FSM}	$t=10\text{ms } T_{vj}=45^\circ\text{C}$	2240	A
i^2t	$t=10\text{ms } T_{vj}=45^\circ\text{C}$	25000	A^2s
V_{isol}	a.c.50Hz;r.m.s.;1min	3000	V
T_{vj}		-40 to 150	$^\circ\text{C}$
T_{stg}		-40 to 125	$^\circ\text{C}$
M_t	To terminals(M6)	$5\pm 15\%$	Nm
M_s	To heatsink(M6)	$5\pm 15\%$	Nm
Weight	Module	230	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.45	$^\circ\text{C/W}$
$R_{th(c-s)}$	Module	0.025	$^\circ\text{C/W}$

Electrical Characteristics

Symbol	Conditions	Values	Units
V_{FM}	$T=25^\circ\text{C } I_{FM}=300\text{A}$	1.55	V
I_{RD}	$T_{vj}=25^\circ\text{C } V_{RD}=V_{RRM}$ $T_{vj}=150^\circ\text{C } V_{RD}=V_{RRM}$	≤ 0.3 ≤ 5	mA mA

Performance Curves

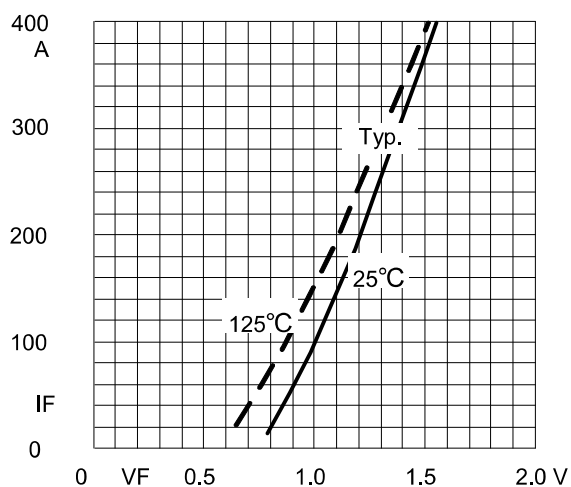


Fig1. Forward Characteristics

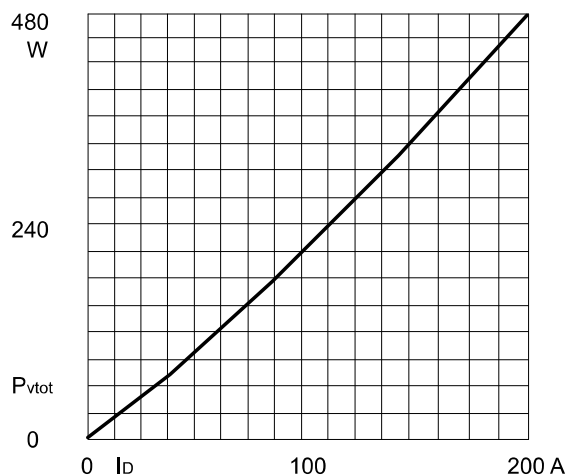


Fig2. Power dissipation

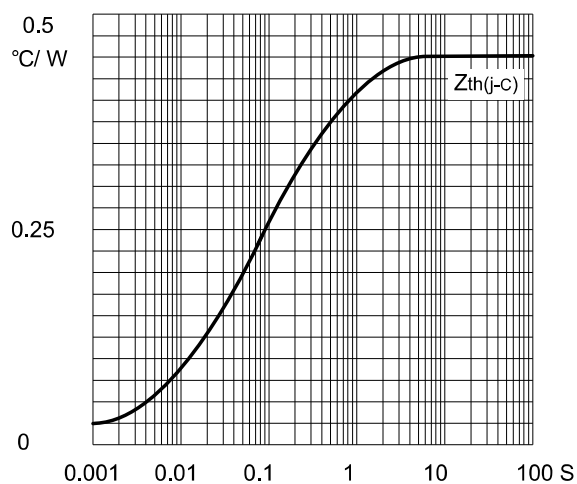


Fig3. Transient thermal impedance

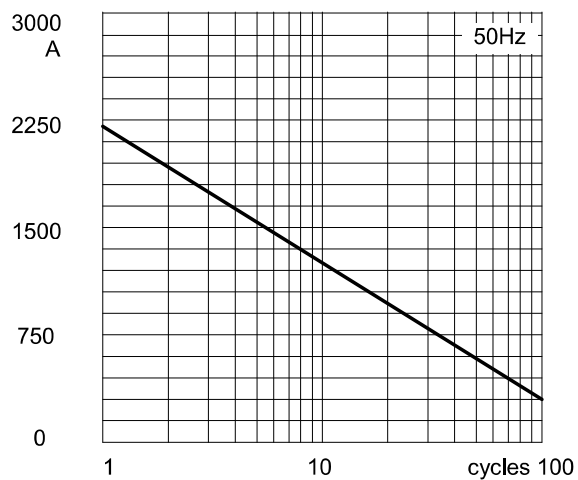


Fig4. Max Non-Repetitive Forward Surge Current

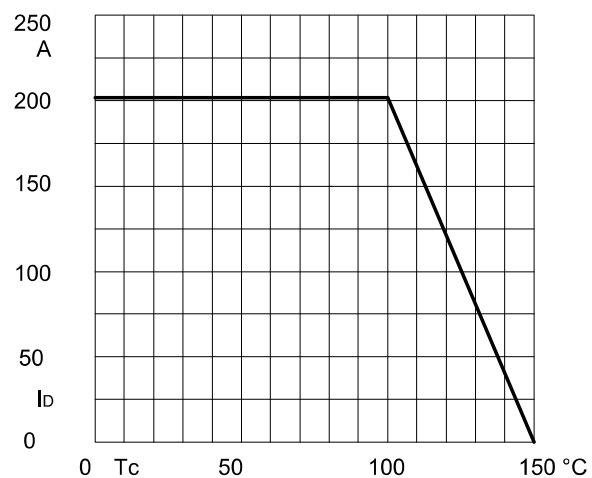
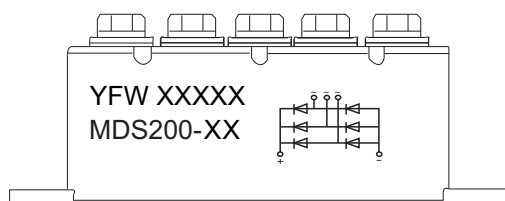


Fig5. Forward Current Derating Curve

Marking Diagram



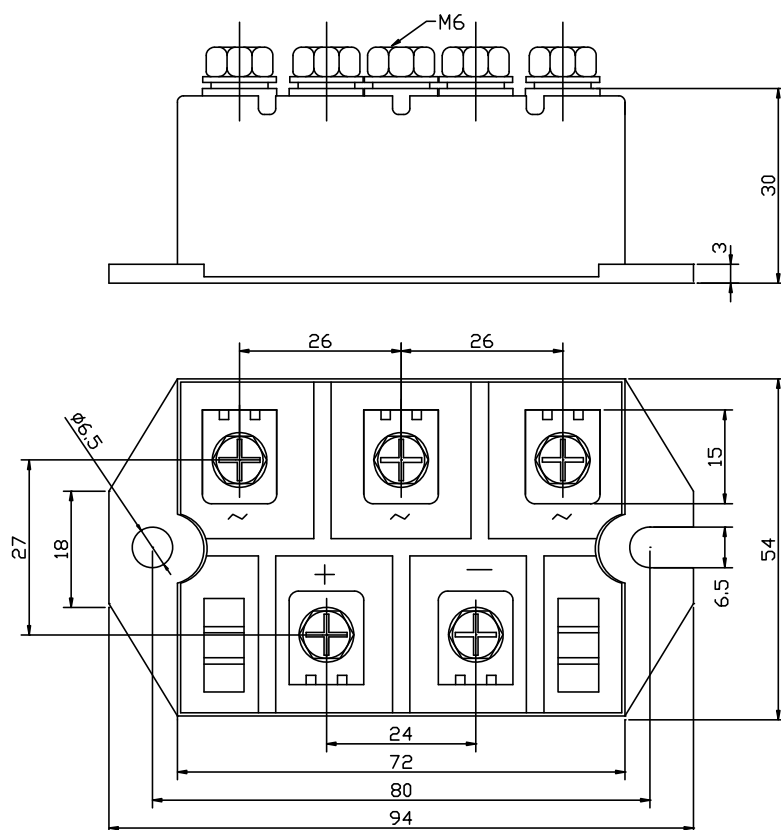
Ordering information

Model name	Package	Unit Weight	Base Quantity
MDS200-XX	M11	-	6pcs/ Box

Package Dimensions

M11

unit: Millimeter



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.