



Glass Passivated Three Phase Rectifier Bridge

VRRM 2000V
ID 200 A

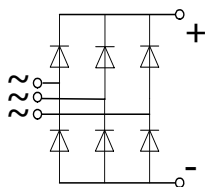
Applications

- 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:2000V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

Circuit



Module Type

TYPE	VRRM	VRSM
MD200S20NM3	2000V	2100V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100℃	200	A
IFSM	t=10mS Tvj =45℃	2240	A
i ² t	t=10mS Tvj =45℃	25000	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	℃
Tstg		-40 to +125	℃
Mt	To terminals(M6)	5±15%	Nm
Ms	To heat sink(M6)	5±15%	Nm
Weight	Module (Approximately)	230	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.45	℃/W
Rth(c-s)	Module (Approximately)	0.025	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25℃ IF =300A	—	1.45	1.70	V
IRD	Tvj=25℃ VRD=VRRM Tvj=150℃ VRD=VRRM	—	—	0.5 6	mA mA

Performance Curves

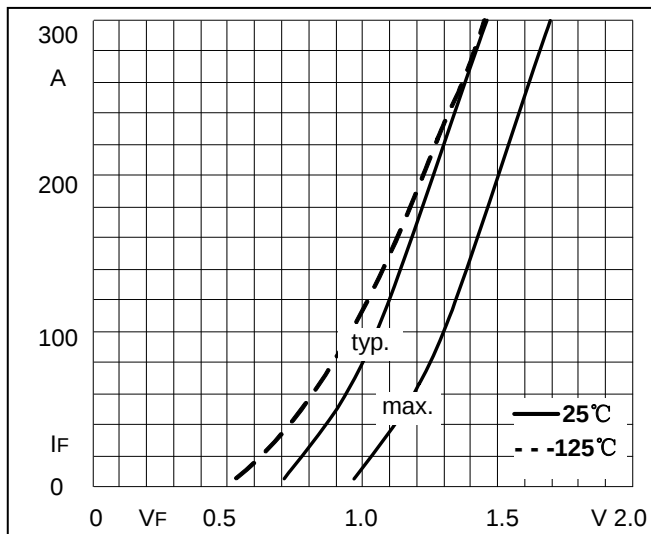


Fig1. Forward Characteristics

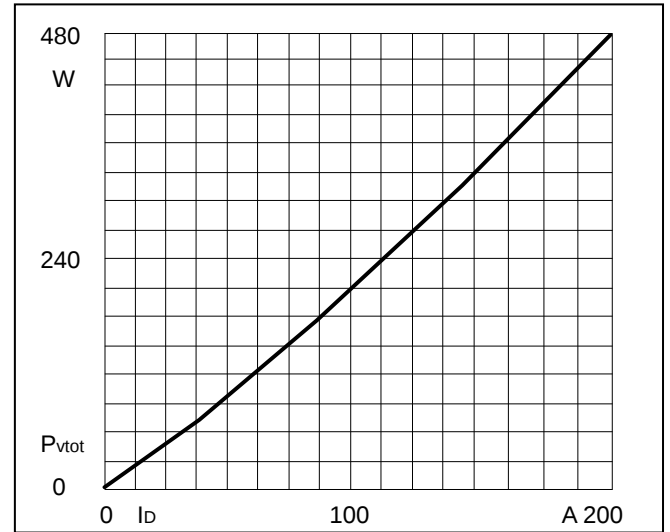


Fig2. Power dissipation

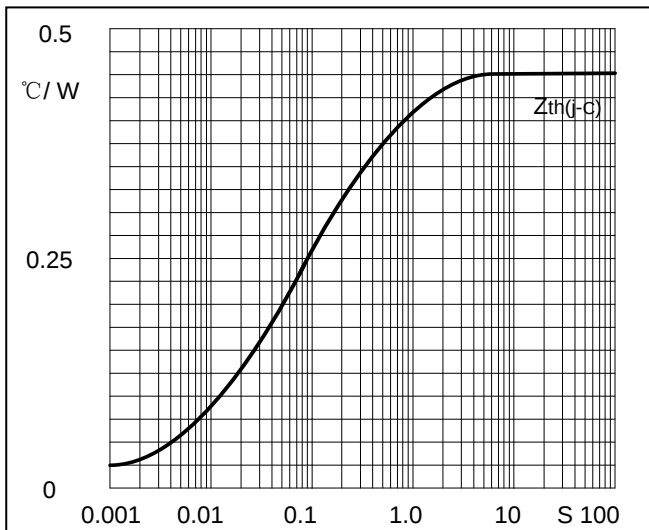


Fig3. Transient thermal impedance

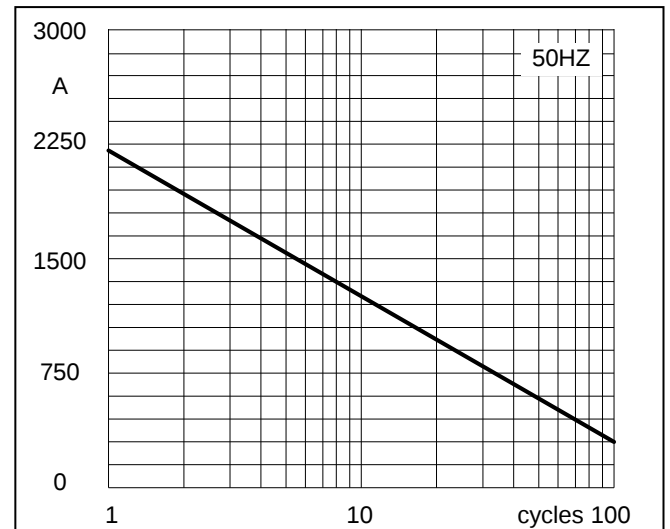


Fig4. Max Non-Repetitive Forward Surge Current

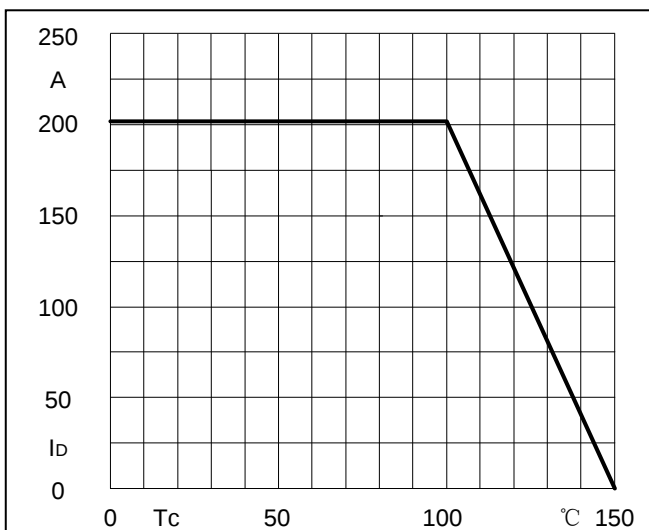
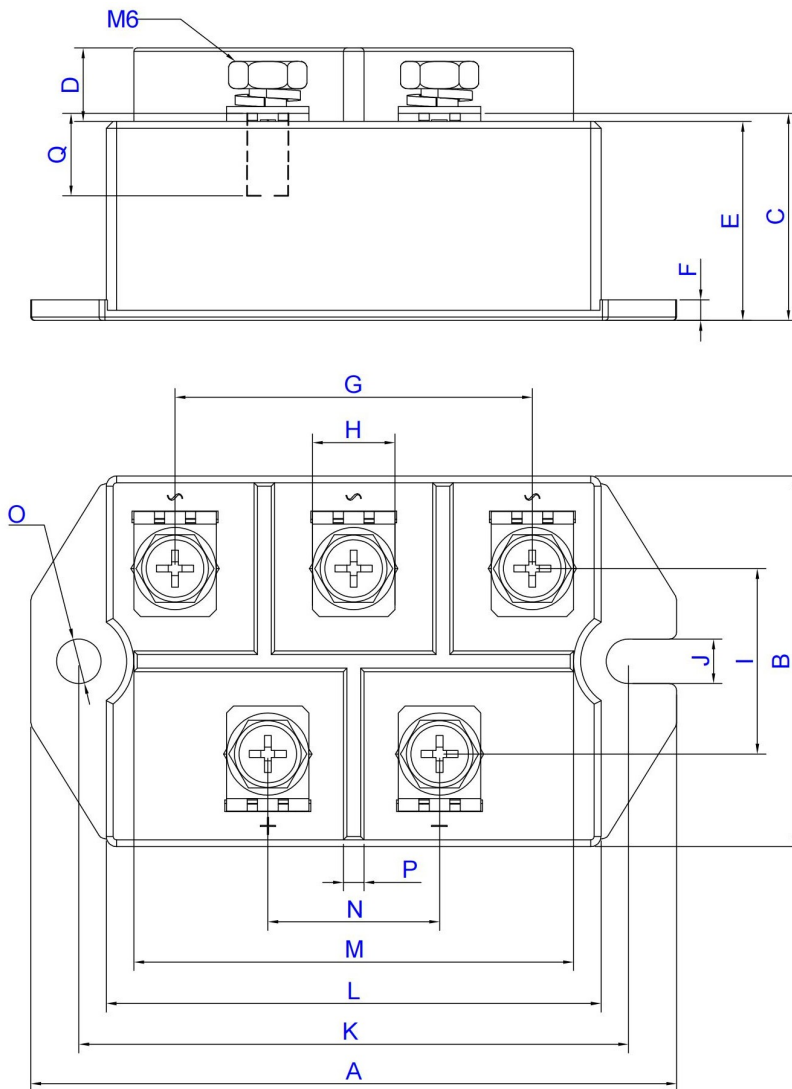


Fig5. Forward Current Derating Curve

Package Outline Information

CASE:NM3



DIM	Min (mm)	Max (mm)	Note
A	93.5	94.5	
B	53.5	54.5	
C	29.8	30.8	
D	10.2	11.2	
E	28.5	29.5	
F	2.5	3.5	
G	51.5	52.5	
H	11.5	12.5	
I	26.5	27.5	
J	6	7	
K	79.5	80.5	
L	71.5	72.5	
M	63.5	64.5	
N	24.5	25.5	
O	6	7	Ø
P	2.5	3.5	
Q	11.5	12.5	

Packing Standard

Item	Length: A (mm)	Width: B (mm)	Height: C (mm)	Quantity (PCS)
Inner Box	276	258	48	6
Outer Carton	545	295	240	60



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