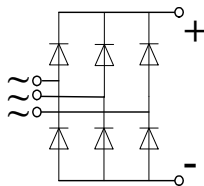




Circuit



Glass Passivated Three Phase Rectifier Bridge

V_{RRM} 800 to 1800V
ID 250 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 DBC ceramic isolated metal baseplate
- Glass passivated chip
- UL recognized applied for file no. E230084

Module Type

TYPE	V _{RRM}	V _{RSM}
MD250S08M9	800V	900V
MD250S12M9	1200V	1300V
MD250S16M9	1600V	1700V
MD250S18M9	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave T _c =100°C	250	A
IFSM	t=10mS T _{vj} =45°C	2800	A
i ² t	t=10mS T _{vj} =45°C	39200	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
T _{vj}		-40 to +150	°C
T _{stg}		-40 to +125	°C
Mt	To terminals (M6)	5±15%	Nm
Ms	To heatsink (M6)	5±15%	Nm
Weight	Module (Approximately)	330	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	0.36	°C/W
R _{th(c-s)}	Module (Approximately)	0.02	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C I _F =300A	—	1.32	1.50	V
I _{RD}	T _{vj} =25°C V _{RD} =V _{RRM} T _{vj} =150°C V _{RD} =V _{RRM}	—	—	0.5 6	mA mA

Performance Curves

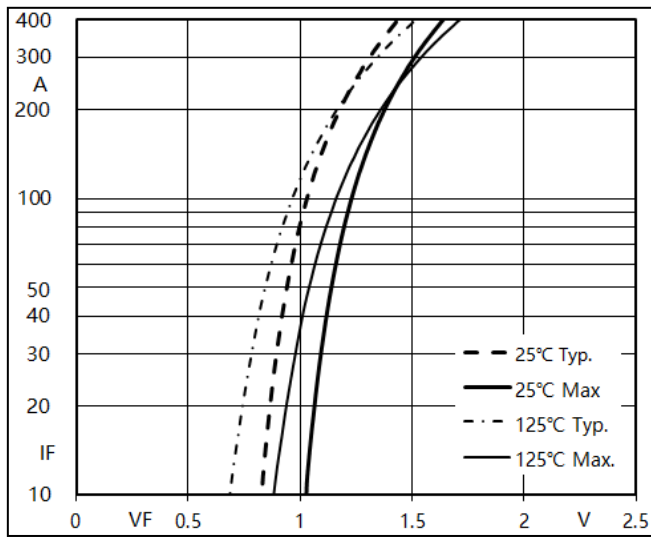


Fig1. Forward Characteristics

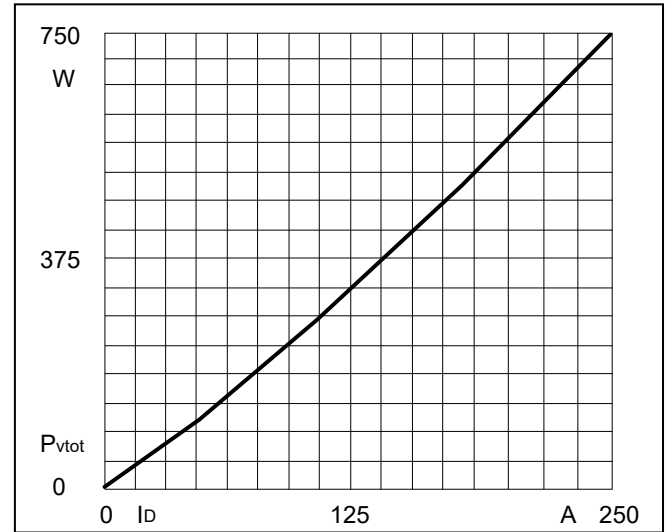


Fig2. Power dissipation

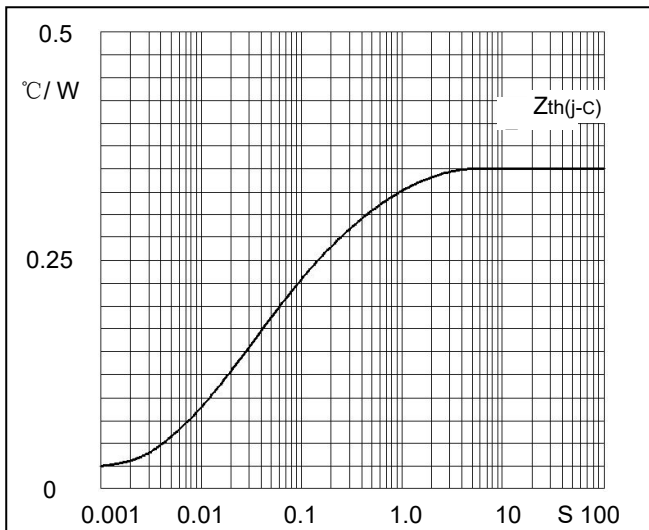


Fig3. Transient thermal impedance

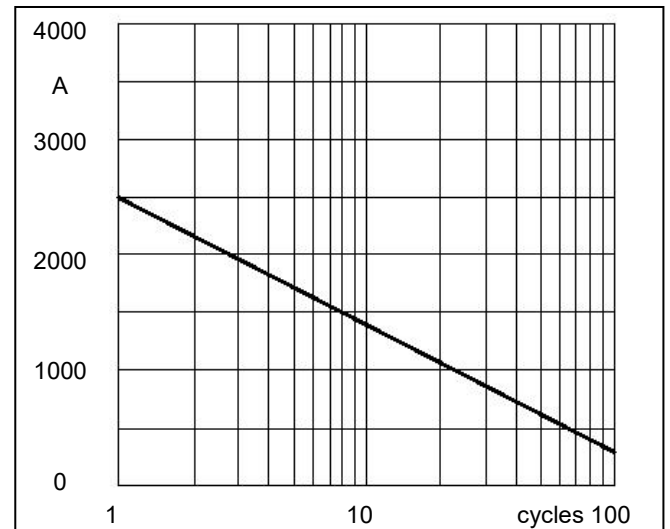


Fig4. Max Non-Repetitive Forward Surge Current

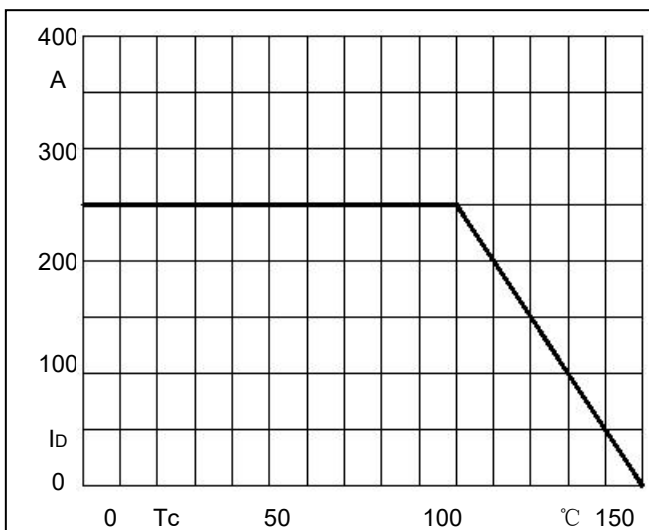
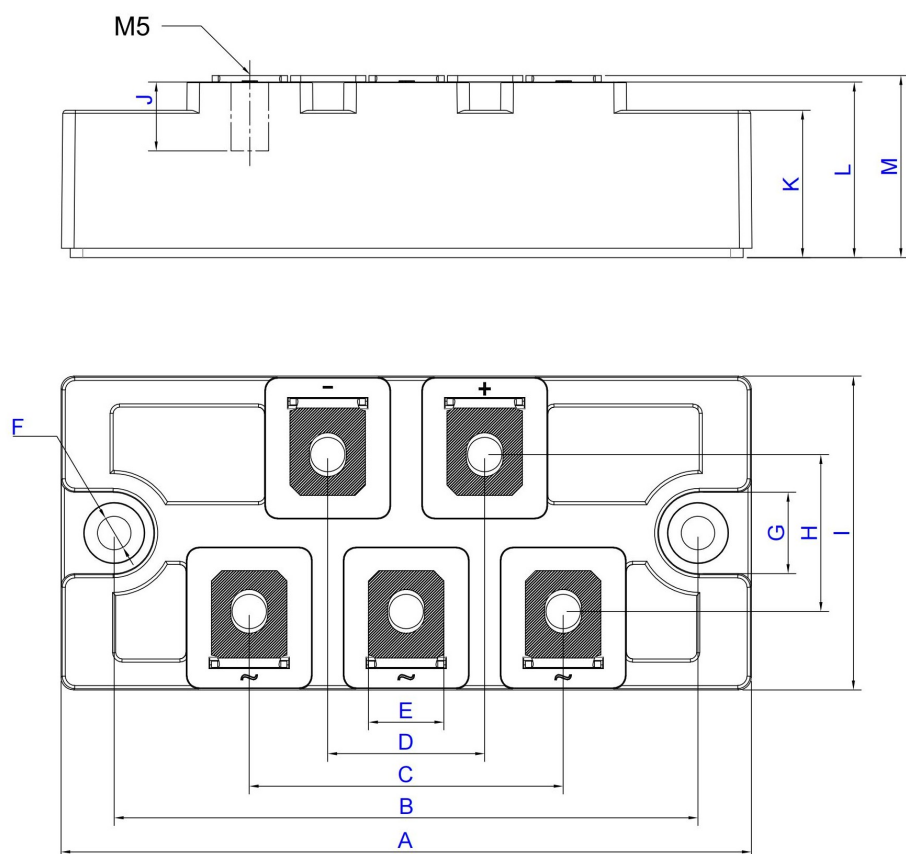


Fig5. Forward Current Derating Curve

Package Outline Information

CASE:M9



DIM	Min (mm)	Max (mm)	Note
A	109.5	110.5	
B	92.5	93.5	
C	49.5	50.5	
D	24.5	25.5	
E	11.5	12.5	
F	5.1	5.7	Ø
G	12.5	13.5	
H	24.5	25.5	
I	49.5	50.5	
J	10.5	11.5	
K	23	24	
L	27.5	28.5	
M	28.5	29.5	

Packing Standard

Item	Length: A (mm)	Width: B (mm)	Height: C (mm)	Quantity (PCS)
Inner Box	276	258	48	4
Outer Carton	545	295	240	40



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