



Glass Passivated Three Phase Rectifier Bridge

VRRM 800 to 1800V
ID 100 A

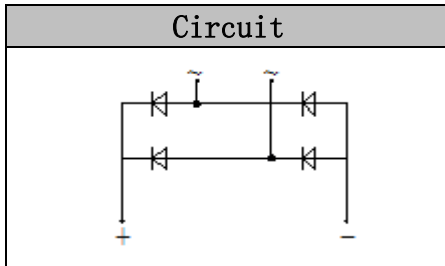
Applications

- Full bridge rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives

Features

- Blocking voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

Circuit



Module Type

TYPE	VRRM	VRSM
MD100H08M2	800V	900V
MD100H12M2	1200V	1300V
MD100H16M2	1600V	1700V
MD100H18M2	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100℃	100	A
IFSM	t=10mS Tvj =45℃	920	A
i ² t	t=10mS Tvj =45℃	4200	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)	3±15%	Nm
Ms	To heatsink(M6)	3±15%	Nm
Weight	Module (Approximately)	130	g

Thermal Characteristics

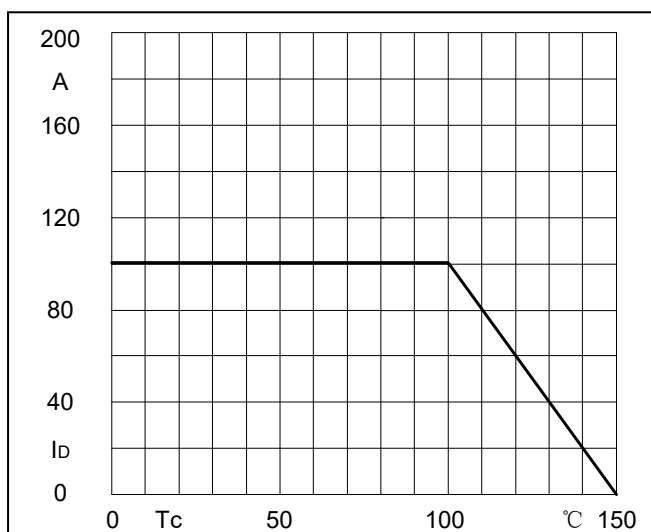
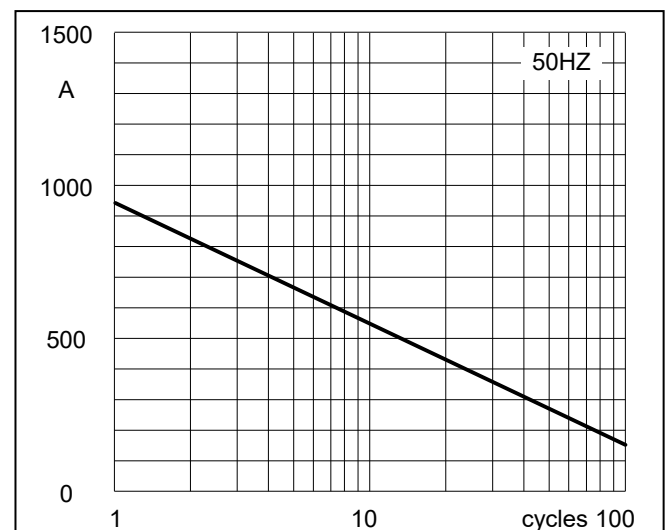
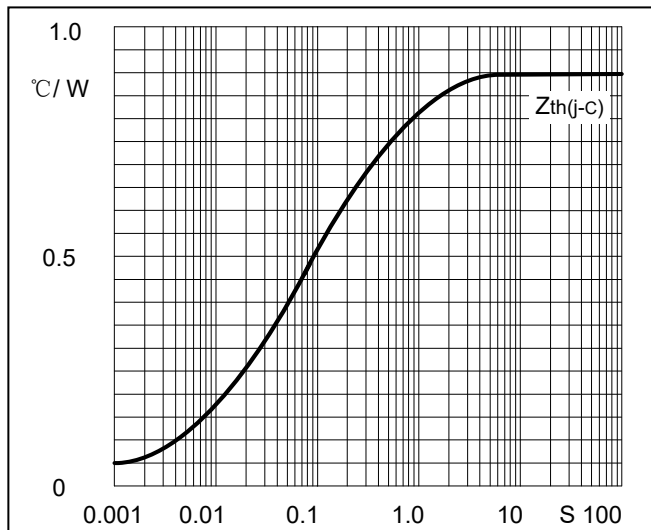
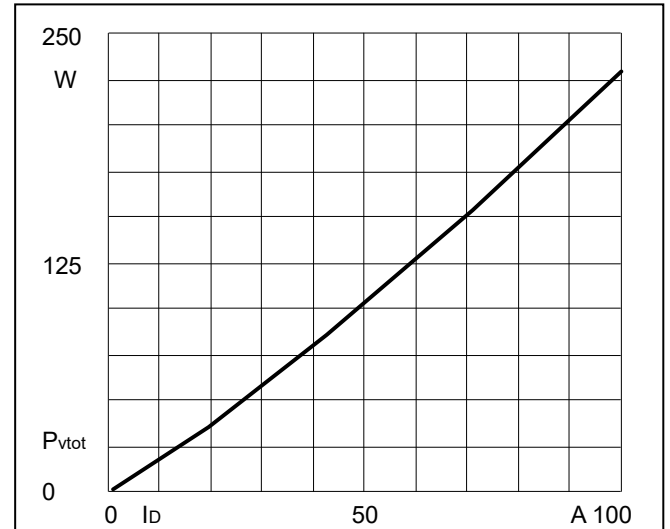
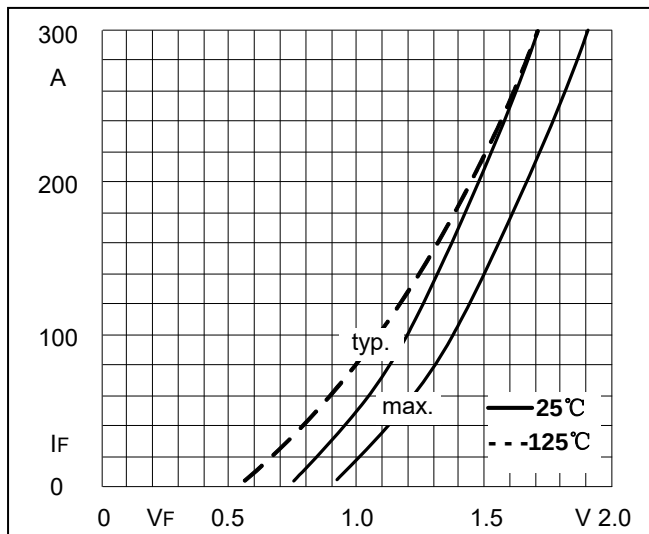
Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.9	℃/W
Rth(c-s)	Module	0.07	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF =150A	—	1.35	1.53	V
I _{RD}	Tvj=25℃ VRD=VRRM Tvj=150℃ VRD=VRRM	—	—	0.3 5	mA mA

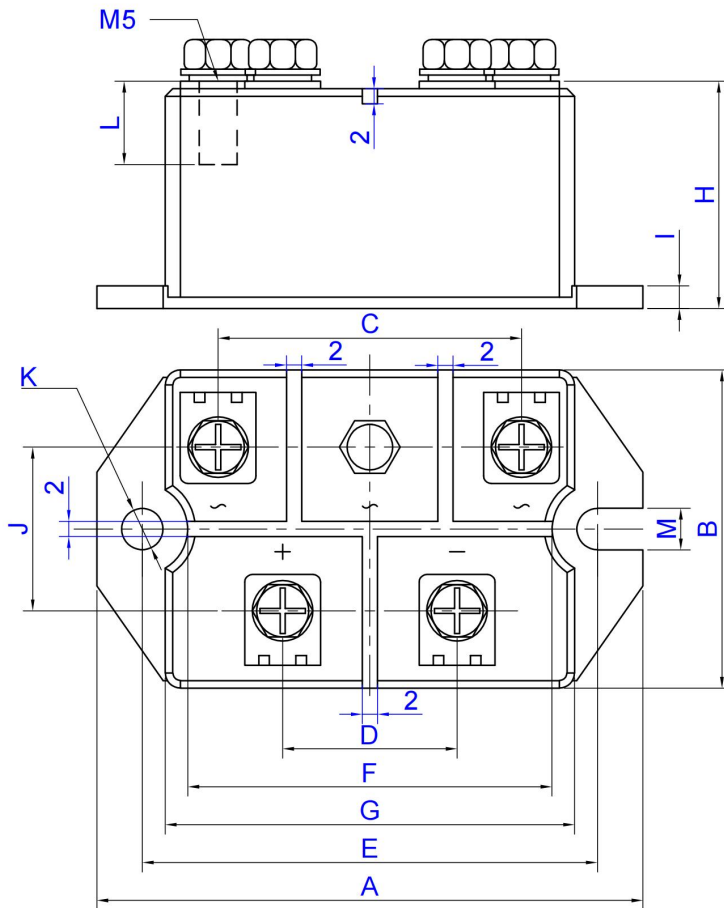


Performance Curves



Package Outline Information

CASE:M2



DIM	Min (mm)	Max (mm)	Note
A	71.5	72.5	
B	41.5	42.5	
C	39.5	40.5	
D	22.7	23.3	
E	59.5	60.5	
F	47.5	48.5	
G	53.5	54.5	
H	29.5	30.5	
I	2.9	3.1	
J	21.3	21.9	
K	5.4	5.6	Ø
L	10	11	
M	5.2	5.8	

Packing Standard

Item	Length: A (mm)	Width: B (mm)	Height: C (mm)	Quantity (PCS)
Inner Box	276	258	48	8
Outer Carton	545	295	240	80



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