



MD100S-M4



Glass Passivated Three Phase Rectifier Bridge

VRRM 800 to 1800V

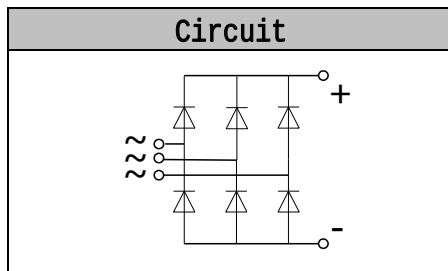
ID 100 A

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	VRRM	VRSM
MD100S08M4	800V	900V
MD100S12M4	1200V	1300V
MD100S16M4	1600V	1700V
MD100S18M4	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100 $\breve{N}$	100	A
IFSM	t=10mS Tvj =45 $\breve{N}$	1020	A
i ² t	t=10mS Tvj =45 $\breve{N}$	5200	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	$\breve{N}$
Tstg		-40 to +125	$\breve{N}$
Mt	To terminals(M5)	3 $\pm$ 15%	Nm
Ms	To heatsink(M5)	3 $\pm$ 15%	Nm
Weight	Module (Approximately)	146	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	1.0	$\breve{N}$ /W
Rth(c-s)	Module (Approximately)	0.07	$\breve{N}$ /W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25 $\breve{N}$ IF =300A		1.70	1.90	V
IRD	Tvj=25 $\breve{N}$ VRD=VRRM			0.3	mA
	Tvj=150 $\breve{N}$ VRD=VRRM			5	mA



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Performance Curves

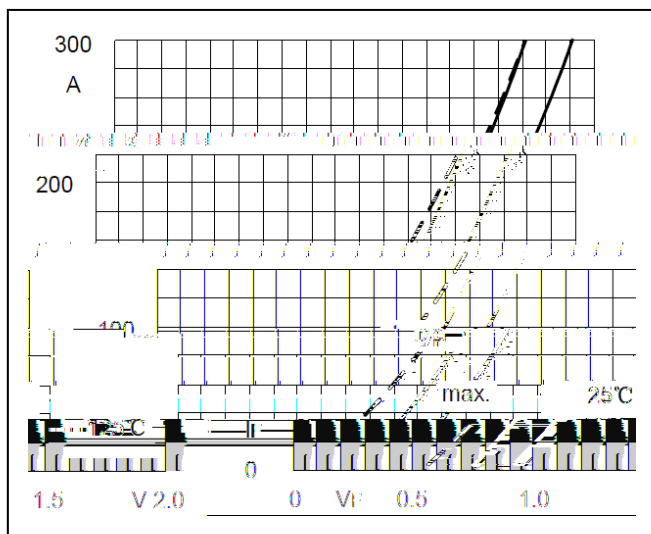


Fig1. Forward Characteristics

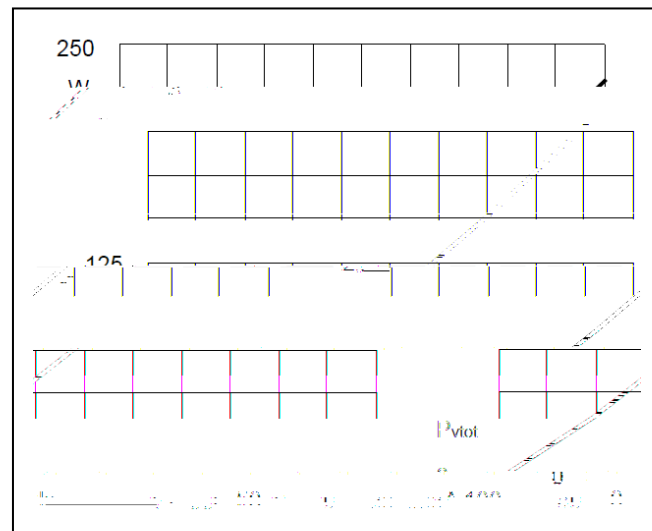


Fig2. Power dissipation

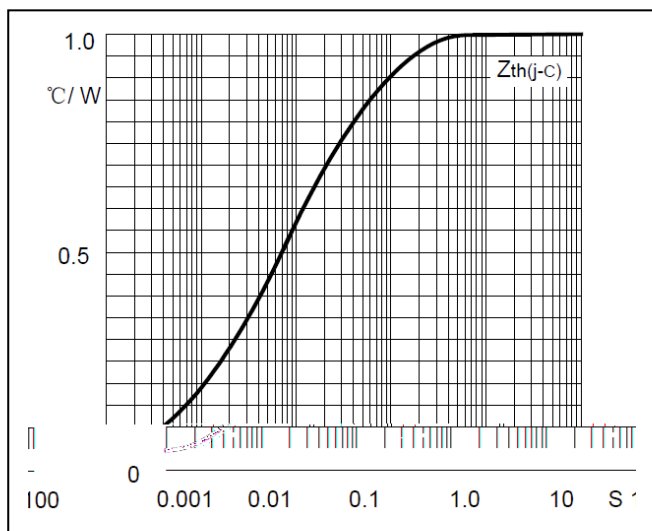


Fig3. Transient thermal impedance

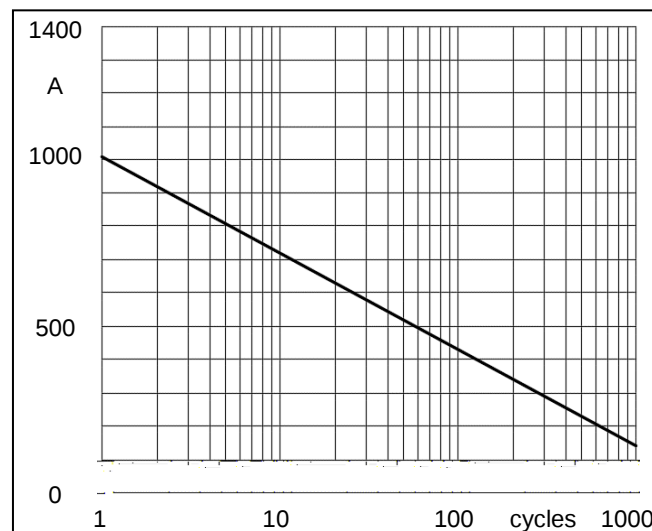


Fig4. Max Non-Repetitive Forward Surge Current

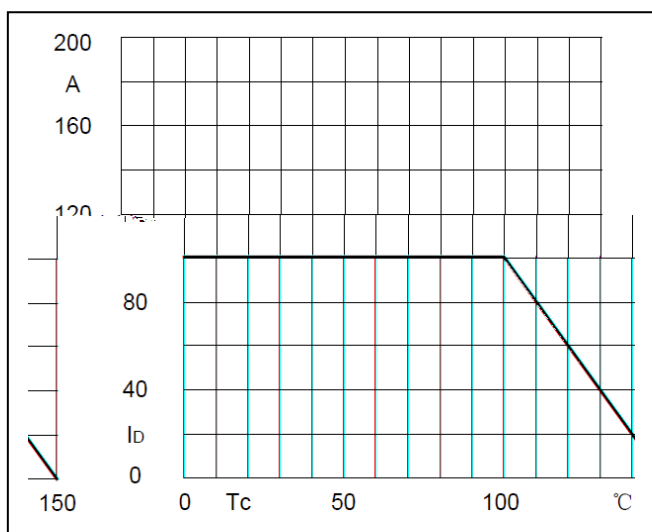
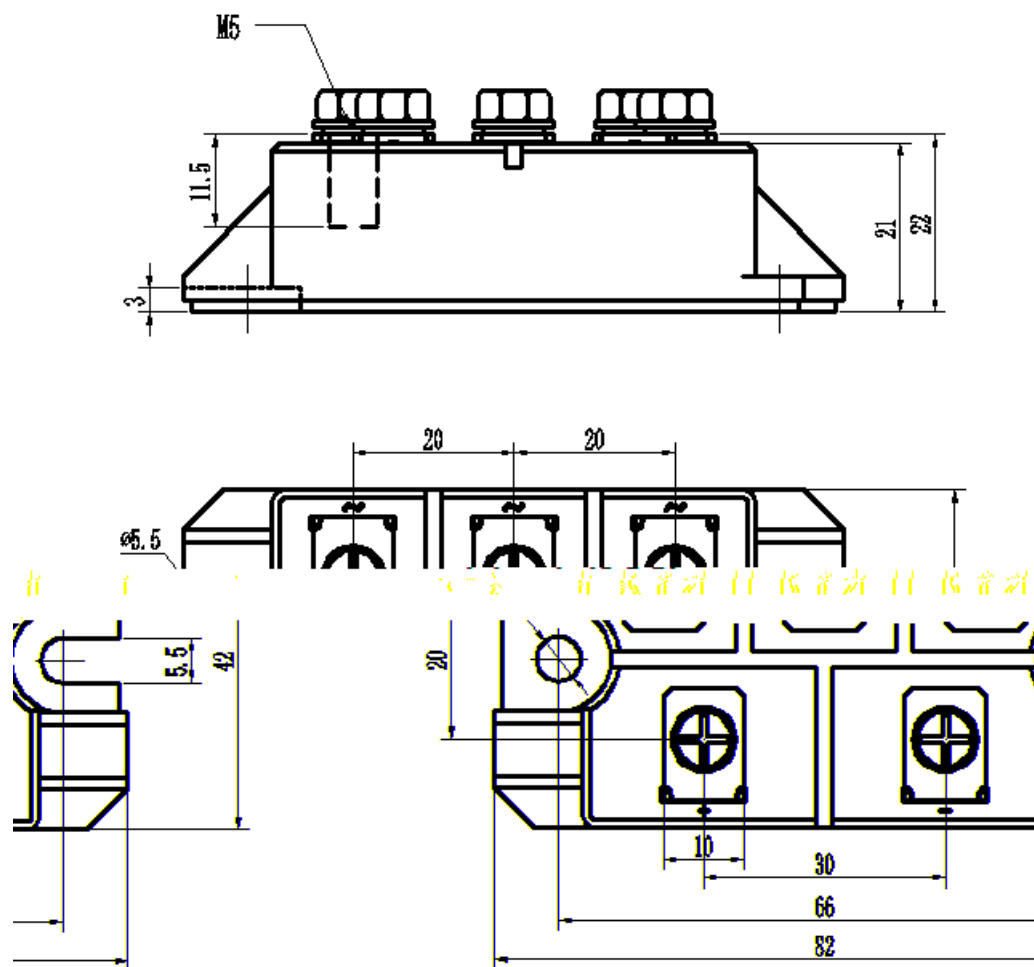


Fig5. Forward Current Derating Curve



CASE M4



Dimensions in mm