



Glass Passivated Three Phase Rectifier Bridge

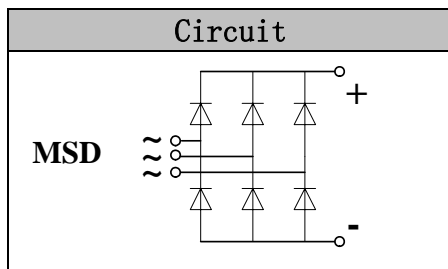
VRRM 800 to 1800V
ID 100 Amp

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 E243882 approved



Module Type

TYPE	VRRM	VRSM
MSD100-08	800V	900V
MSD100-12	1200V	1300V
MSD100-16	1600V	1700V
MSD100-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100°C	100	A
IFSM	t=10mS Tvj =45°C	920	A
i ² t	t=10mS Tvj =45°C	4200	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
Mt	To terminals(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	230	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.9	°C/W
Rth(c-s)	Module	0.03	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C IF =300A	—	1.70	1.90	V
I _{RD}	Tvj=25°C VRD=VRRM Tvj=150°C VRD=VRRM	—	—	0.3 5	mA mA

Performance Curves

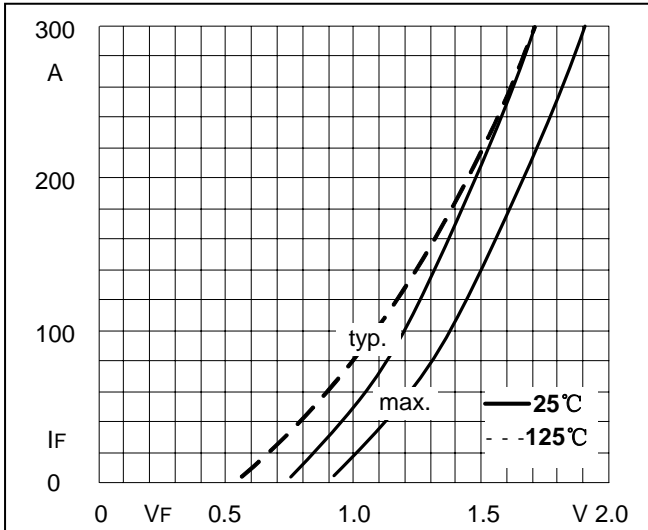


Fig1. Forward Characteristics

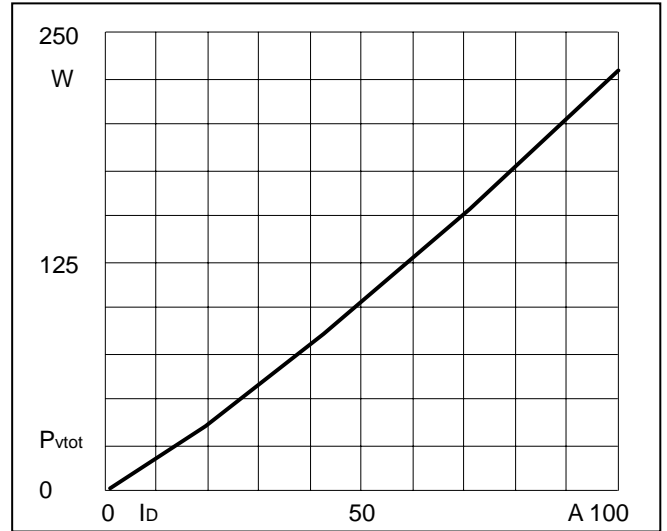


Fig2. Power dissipation

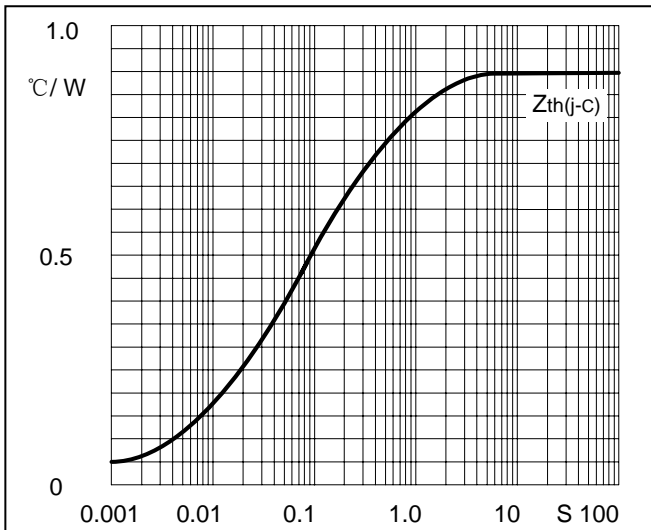


Fig3. Transient thermal impedance

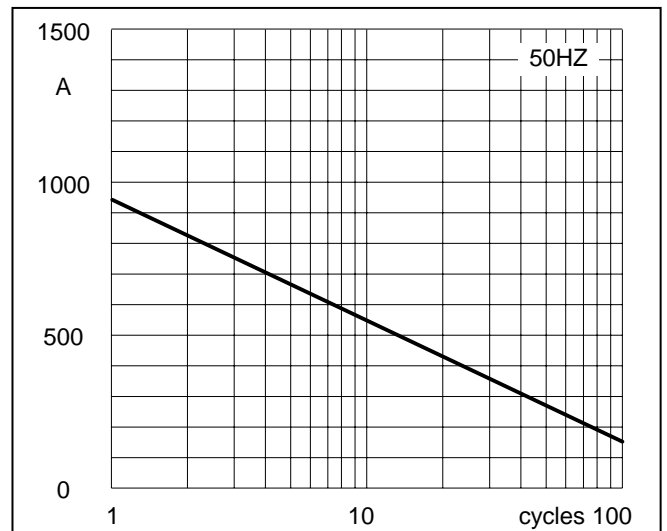


Fig4. Max Non-Repetitive Forward Surge Current

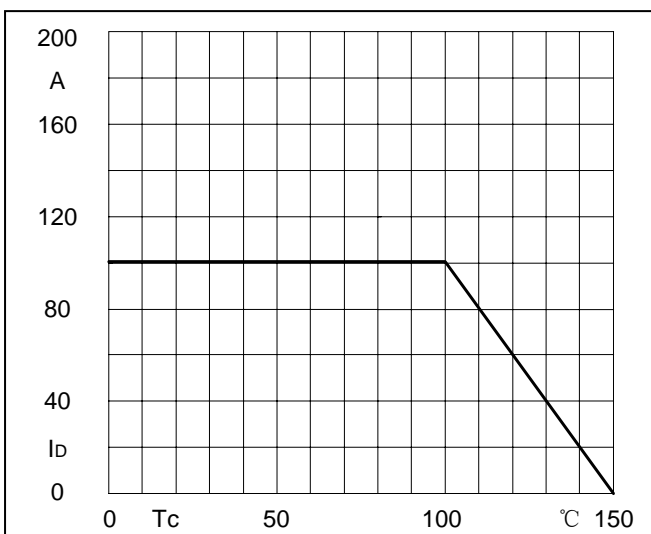
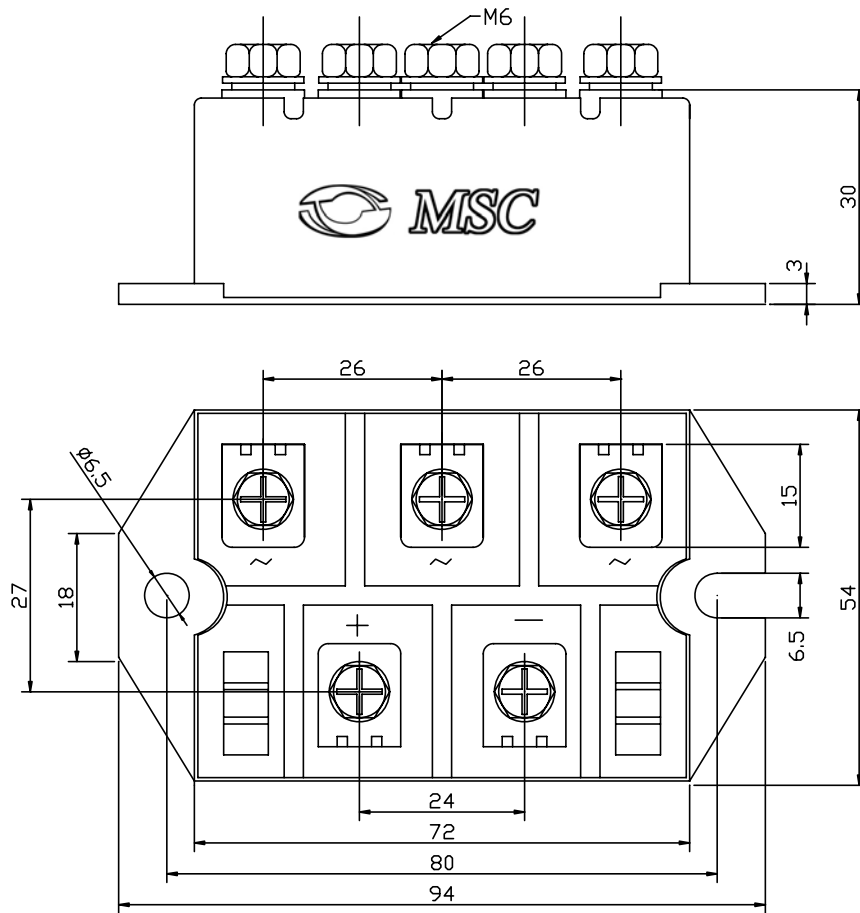


Fig5. Forward Current Derating Curve

Package Outline Information

CASE: M3



Dimensions in mm