



Glass Passivated Three Phase Rectifier Bridge

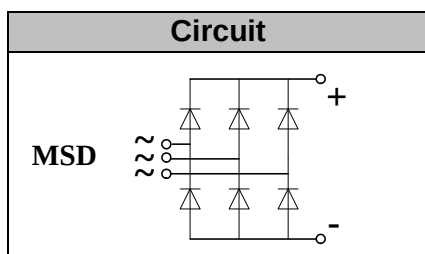
VRRM 800 to 1800V
ID 50 Amp

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 DCB ceramic isolated metal baseplate
- Glass passivated chip



Module Type

TYPE	VRRM	VRSM
MSD52 – 08	800V	900V
MSD52 – 12	1200V	1300V
MSD52 – 16	1600V	1700V
MSD52 – 18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Tc=110°C	50	A
IFSM	t=10mS Tvj =45°C	460	A
i ² t	t=10mS Tvj =45°C	1050	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(M5)	5±15%	Nm
Ms	To heatsink(M5)	5±15%	Nm
Weight	Module	135	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	1.45	°C/W
Rth(c-s)	Module	0.07	°C/W

Electrical Characteristics

Symbol	Conditions	Values	Units
VFM	T=25°C IFM =150A	1.8	V
IRD	Tvj =25°C VRD=VRRM Tvj =150°C VRD=VRRM	≤0.3 ≤5	mA mA

Performance Curves

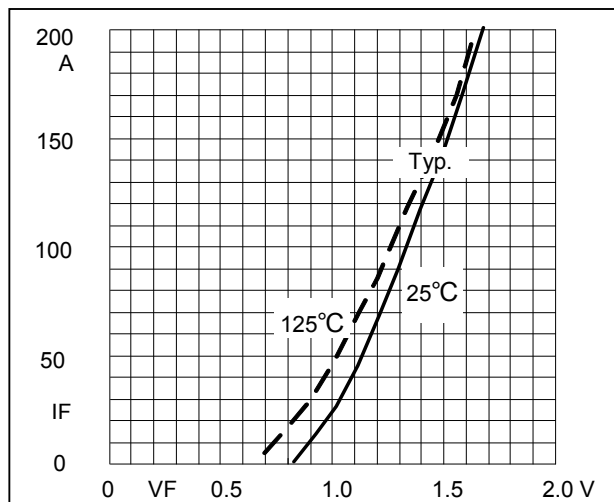


Fig1. Forward Characteristics

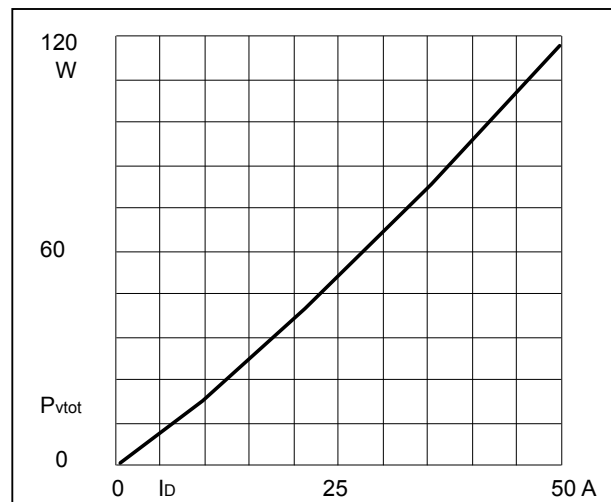


Fig2. Power dissipation

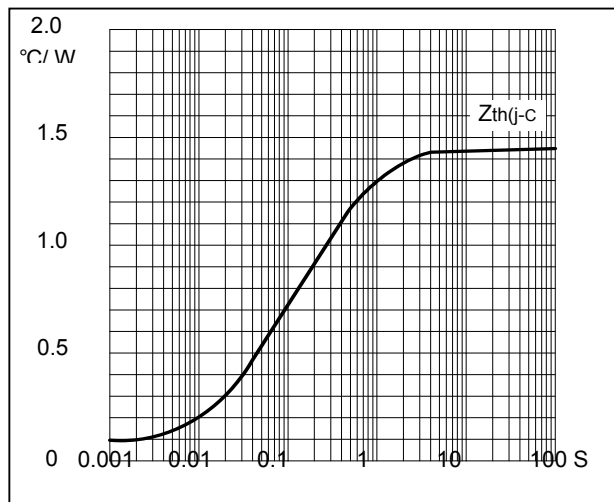


Fig3. Transient thermal impedance

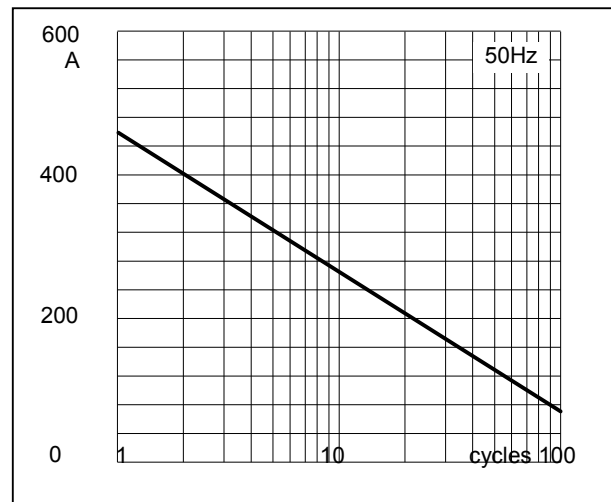


Fig4. Max Non-Repetitive Forward Surge Current

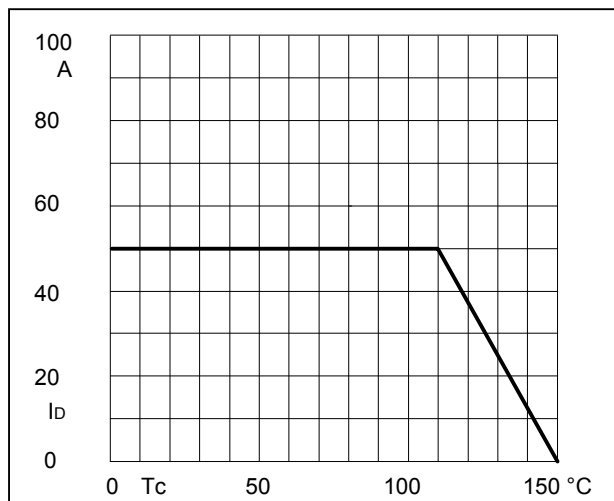
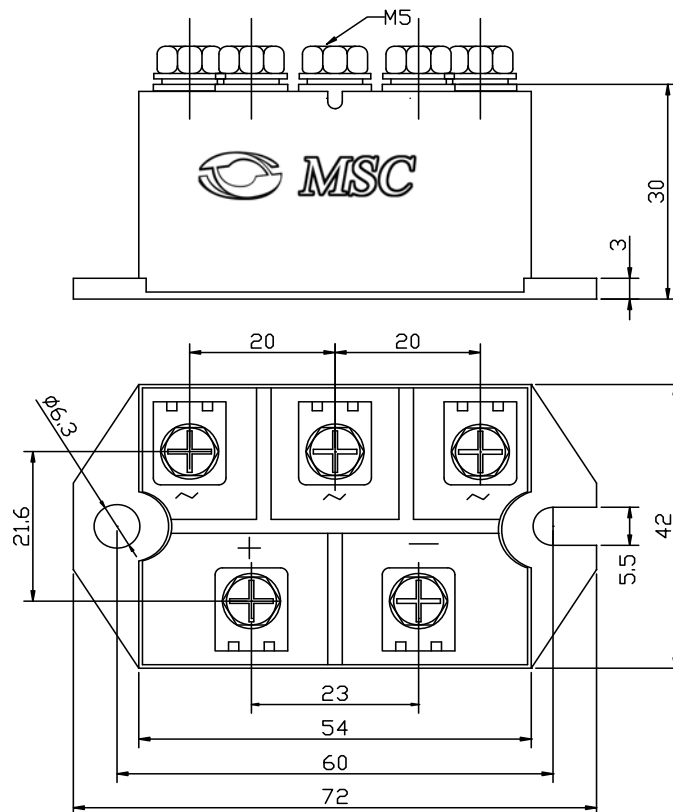


Fig5. Forward Current Derating Curve

Package Outline Information

CASE-M2



Dimensions in mm

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Microchip:](#)

[MSD52-18](#) [MSD52-12](#) [MSD52-16](#)