



Glass Passivated Three Phase Rectifier Bridge

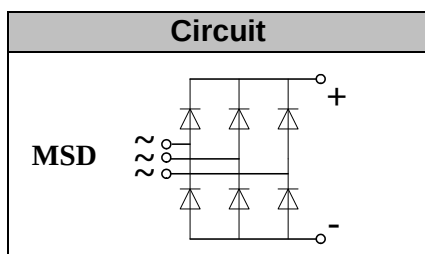
V_{RRM} 800 to 1800V
ID 50 Amp

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	V _{RRM}	V _{RSM}
MSD52 – 08	800V	900V
MSD52 – 12	1200V	1300V
MSD52 – 16	1600V	1700V
MSD52 – 18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I _D	T _c =110°C	50	A
I _{FSM}	t=10mS T _{vj} =45°C	460	A
i ² t	t=10mS T _{vj} =45°C	1050	A ² s
V _{isol}	a.c.50Hz;r.m.s.;1min	3000	V
T _{vj}		-40 to 150	°C
T _{stg}		-40 to 125	°C
M _t	To terminals(M5)	5±15%	Nm
M _s	To heatsink(M5)	5±15%	Nm
Weight	Module	135	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	1.45	°C/W
R _{th(c-s)}	Module	0.07	°C/W

Electrical Characteristics

Symbol	Conditions	Values	Units
V _{FM}	T=25°C I _{FM} =150A	1.8	V
I _{RD}	T _{vj} =25°C V _{RD} =V _{RRM} T _{vj} =150°C V _{RD} =V _{RRM}	≤0.3 ≤5	mA mA

Performance Curves

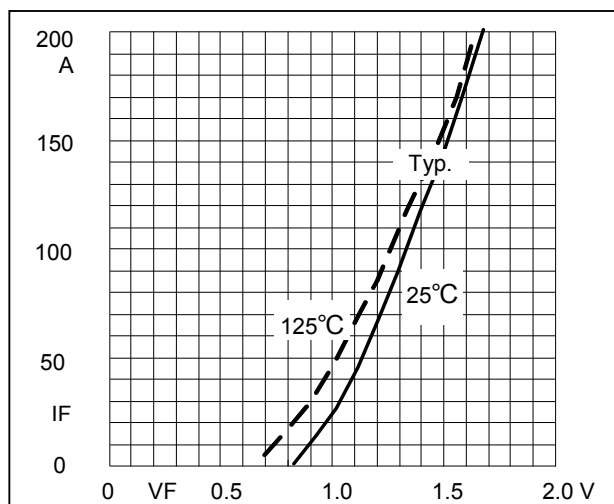


Fig1. Forward Characteristics

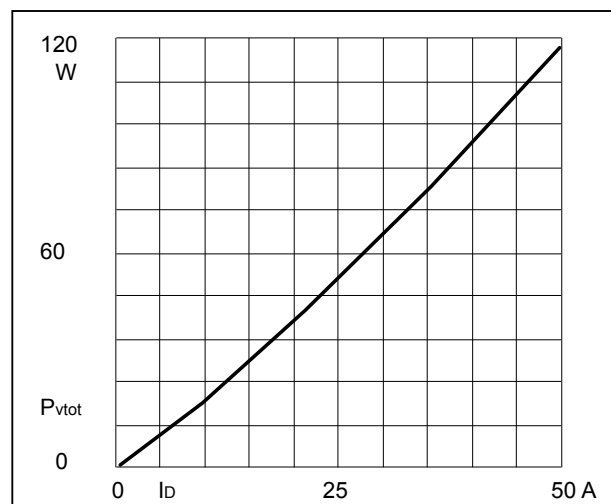


Fig2. Power dissipation

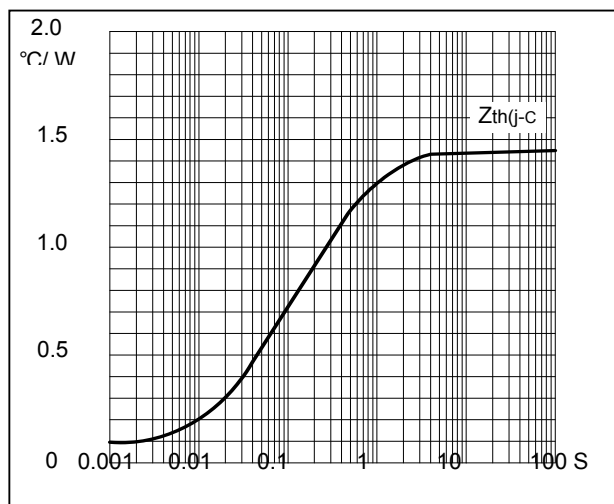


Fig3. Transient thermal impedance

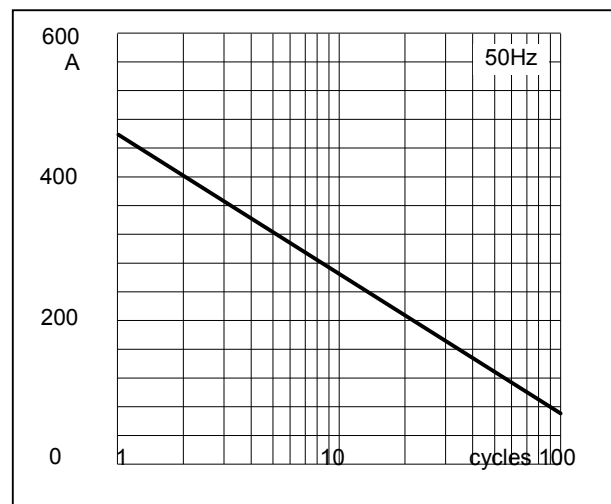


Fig4. Max Non-Repetitive Forward Surge Current

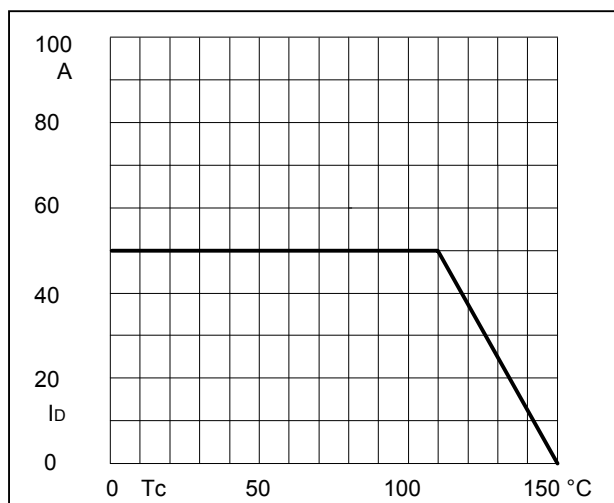
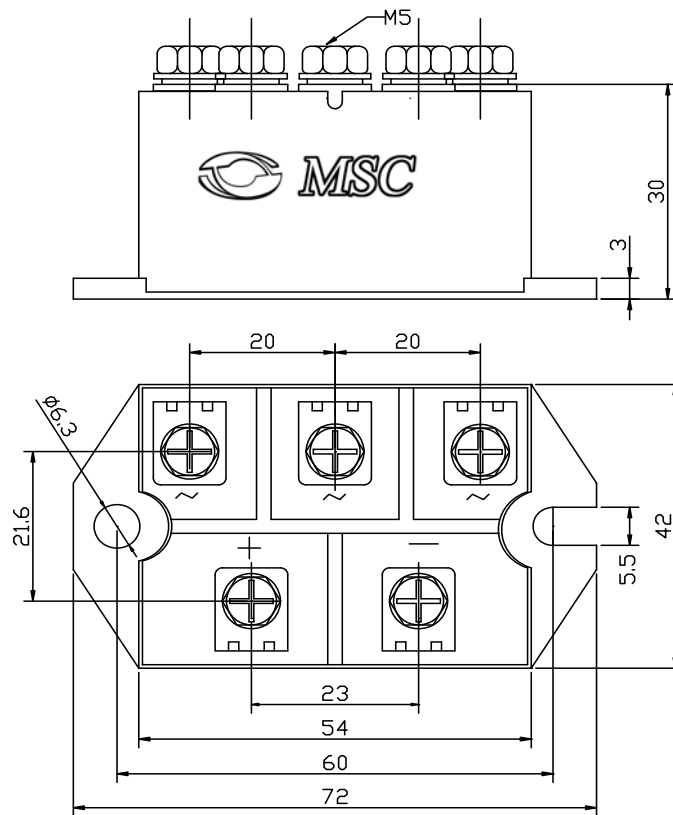


Fig5. Forward Current Derating Curve

Package Outline Information

CASE-M2



Dimensions in mm