

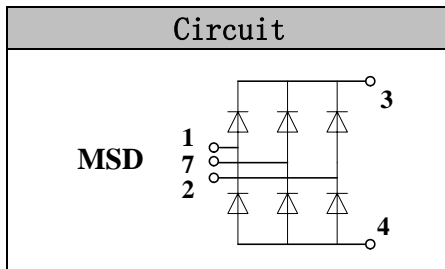


Glass Passivated Three Phase Rectifier Bridge

VRRM 800 to 1800V
ID 30 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 oxideDBC ceramic isolated metal baseplate
- Glass passivated chip
- UL E243882 approved

Module Type

TYPE	VRRM	VRSM
MSD30-08	800V	900V
MSD30-12	1200V	1300V
MSD30-16	1600V	1700V
MSD30-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=120°C	30	A
IFSM	t=10mS Tvj =45°C	300	A
i ² t	t=10mS Tvj =45°C	450	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
Ms	To heatsink(M5)	3±5%	Nm
Weight	Module (Approximately)	78	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	1.5	°C/W
R _{th(c-s)}	Module (Approximately)	0.2	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C I _F =100A	—	1.31	1.60	V
I _{RD}	T _{vj} =25°C V _{RD} =V _{RRM}	—	—	0.2	mA
	T _{vj} =150°C V _{RD} =V _{RRM}	—	—	3	mA

Performance Curves

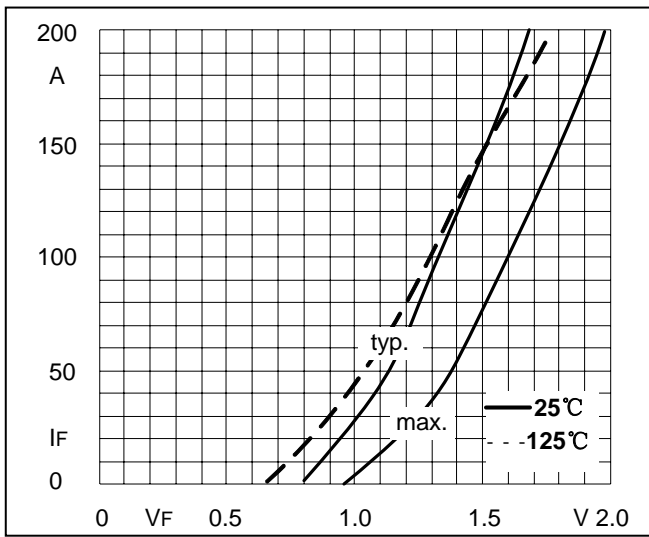


Fig1. Forward Characteristics

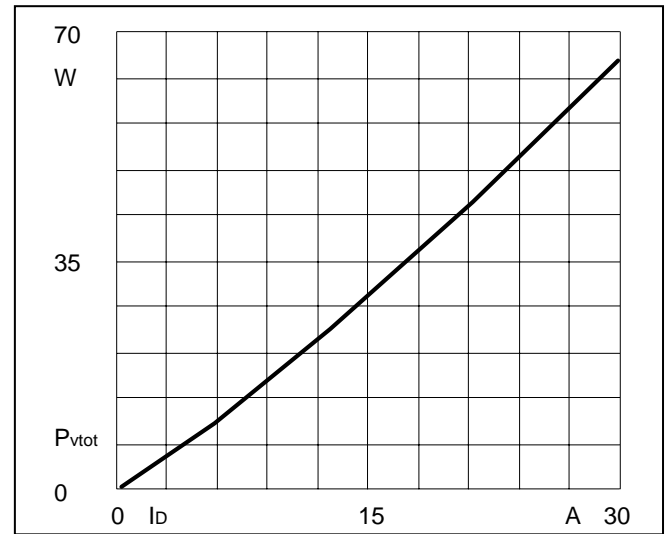


Fig2. Power dissipation

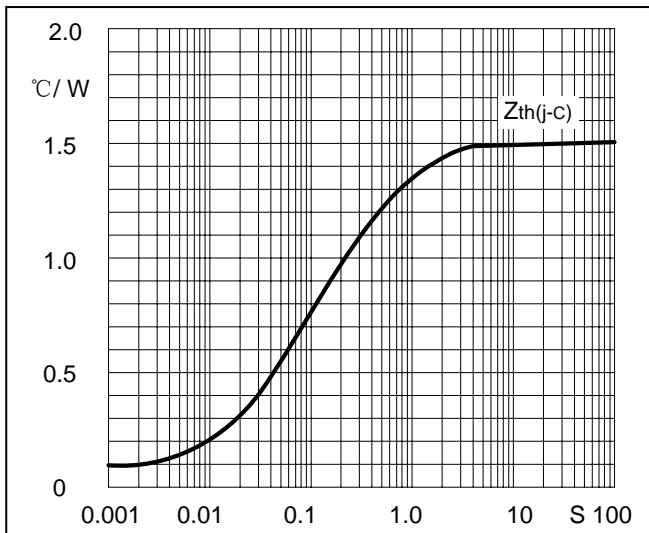


Fig3. Transient thermal impedance

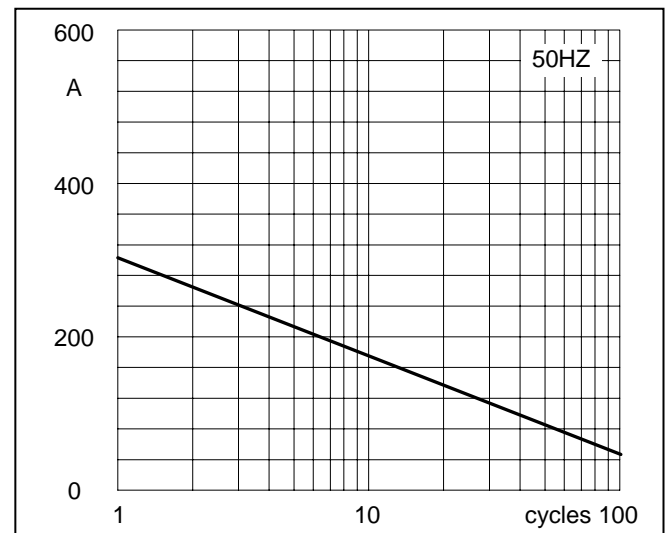


Fig4. Max Non-Repetitive Forward Surge Current

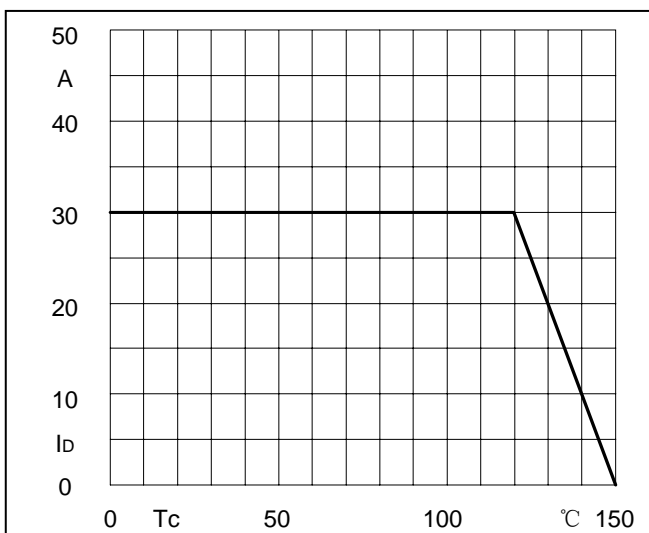
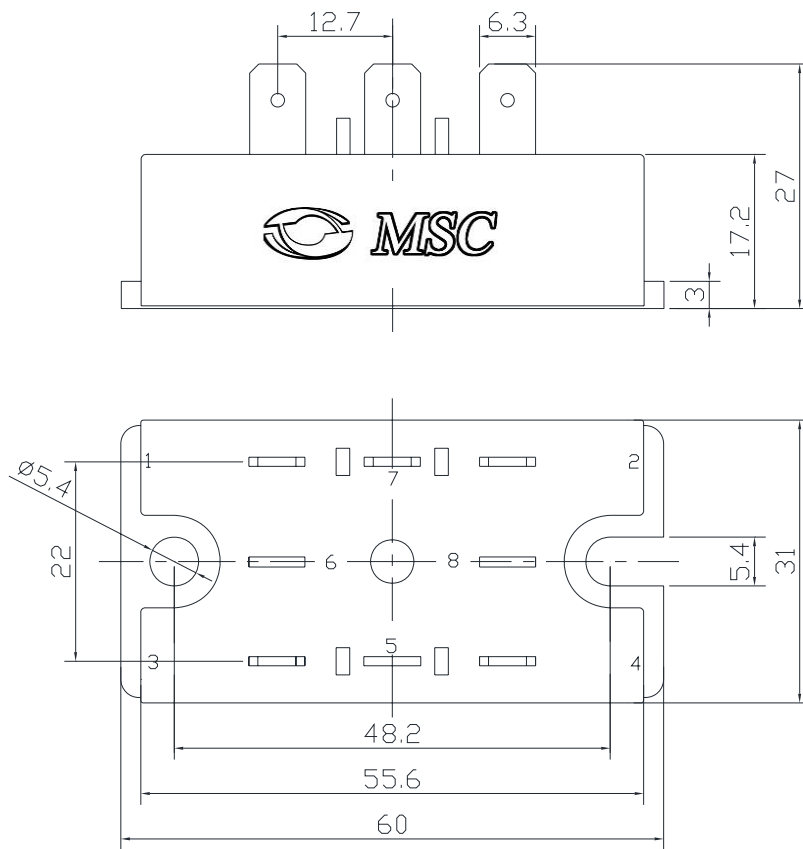


Fig5. Forward Current Derating Curve

Package Outline Information

CASE: M1



Dimensions in mm