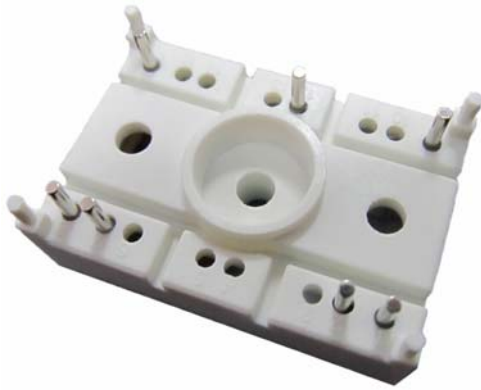




Glass Passivated Three Phase Rectifier Bridge

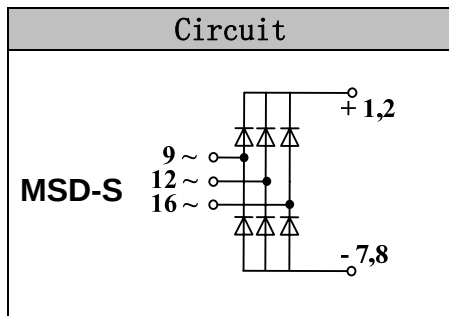
V_{RRM} 800 to 1800V
ID 70 Amp

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 and insulation through direct copper bonded aluminum oxide ceramic (DBC)
- Glass passivated chip
- High surge currents



Module Type

TYPE	V _{RRM}	V _{RSM}
MSD70S-08	800V	900V
MSD70S-12	1200V	1300V
MSD70S-16	1600V	1700V
MSD70S-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave T _S =80°C	70	A
IFSM	t=10mS Tvj =25°C	370	A
i ² t	t=10mS Tvj =25°C	685	A ² s
Visol	a.c.50HZ;r.m.s.;1min	2500	V
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
Ms	To heatsink(M4)	2	Nm
T _{solder}	Terminals,10s	260	°C
Weight	Module (Approximately)	21	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-s)	Per diode	1.62	°C/W
	Module (Approximately)	0.27	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =25A	—	—	1.25	V
IRD	Tvj=25°C VRD=VRRM	—	—	0.3	mA
	Tvj=150°C VRD=VRRM			4	mA

Performance Curves

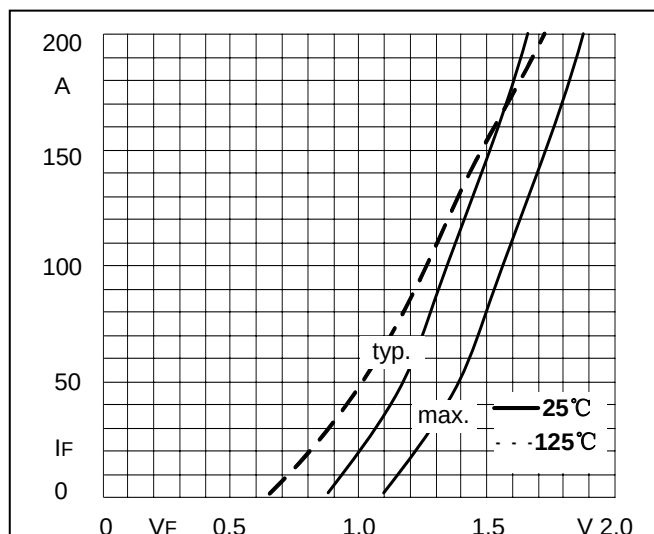


Fig1. Forward Characteristics

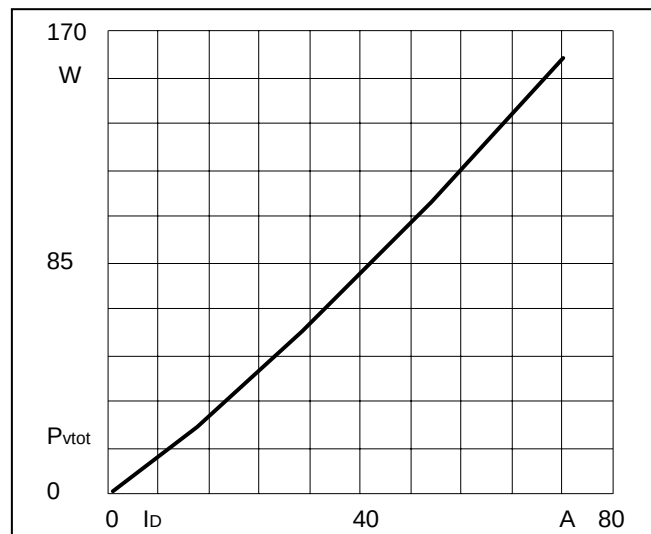


Fig2. Power dissipation

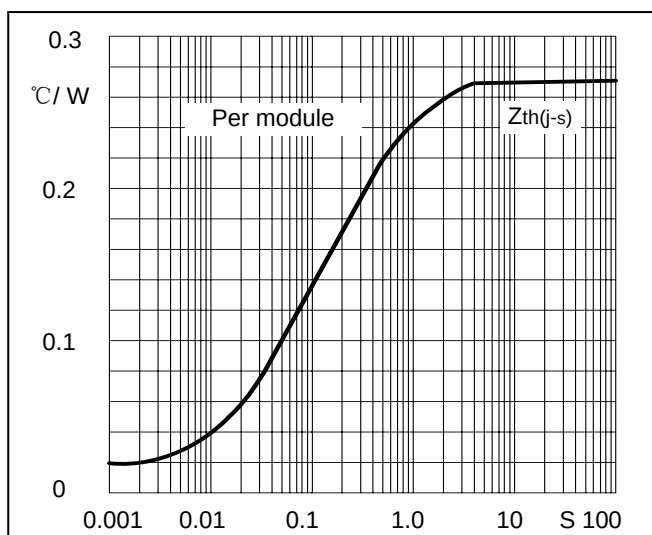


Fig3. Transient thermal impedance

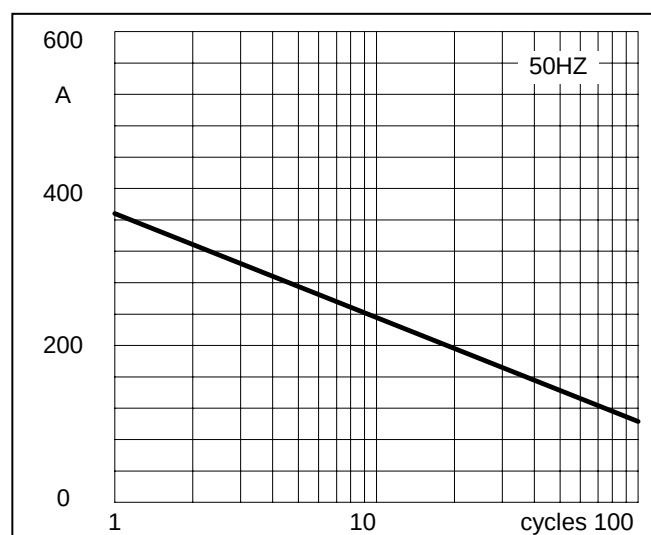


Fig4. Max Non-Repetitive Forward Surge Current

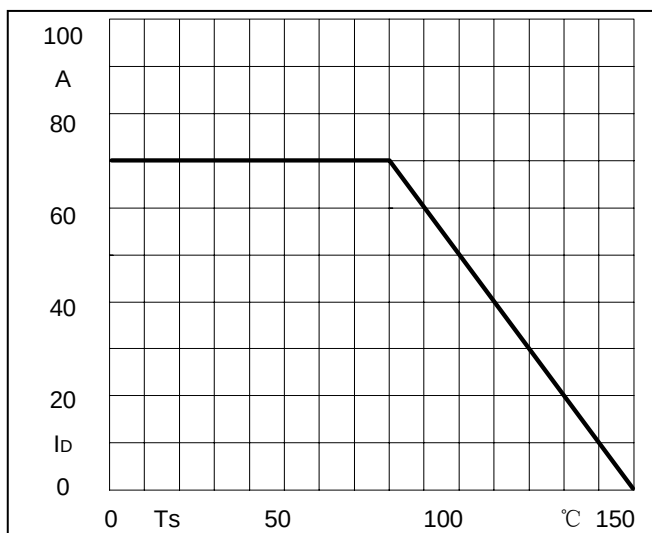
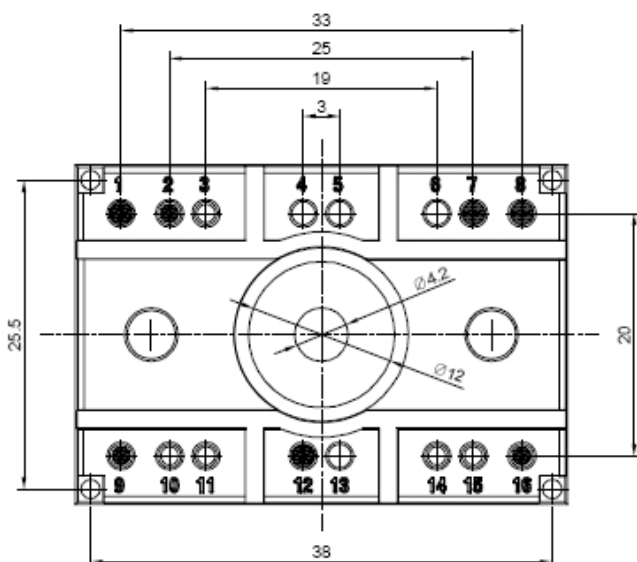
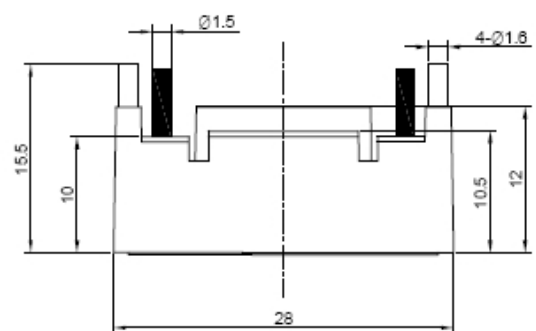
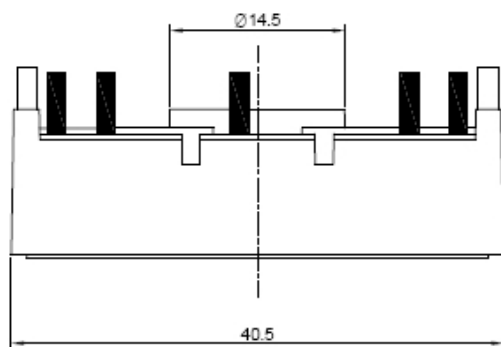


Fig5. Forward Current Derating Curve

Package Outline Information

CASE: MS2



Dimensions in mm