MD75S-M2

RoHS COMPLIANT



Glass Passivated Three Phase Rectifier Bridge

VRRM 800 to 1800V
ID 75 A

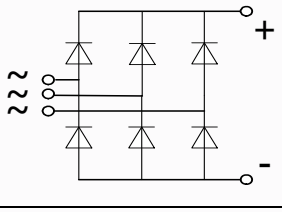
Applications

- 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 recognized applied for file no. E360040

Circuit



Module Type

TYPE	VRRM	VRSM
MD75S08M2	800V	900V
MD75S12M2	1200V	1300V
MD75S16M2	1600V	1700V
MD75S18M2	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_D	Three phase, full wave Tc=110	75	A
I_{FSM}	t=10mS Tvj =45	750	A
i^2t	t=10mS Tvj =45	2800	A^2s
V_{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T_{vj}		-40 to +150	
T_{stg}		-40 to +125	
Mt	To terminals(M5)	5±15%	Nm
Ms	To heatsink(M5)	5±15%	Nm
Weight	Module (Approximately)	130	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	1.1	/W
Rth(c-s)	Module (Approximately)	0.07	/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	T=25 I_F =150A		1.38	1.60	V
I_{RD}	T_{vj}=25 $V_{RD}=V_{RRM}$ T_{vj}=150 $V_{RD}=V_{RRM}$			0.3 5	mA mA

Performance Curves

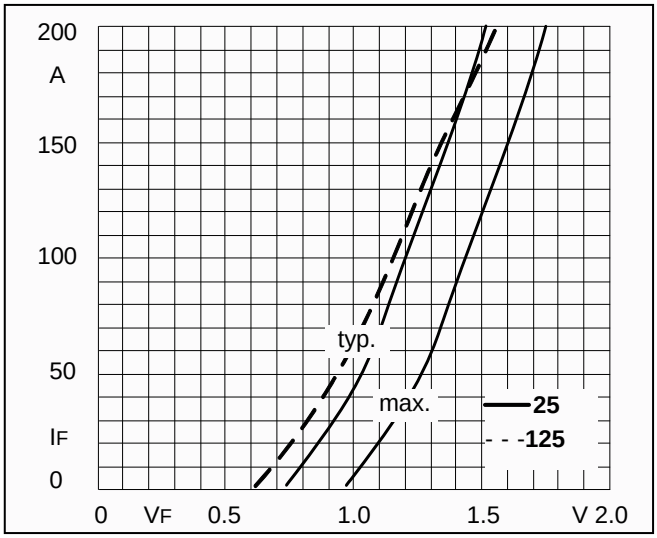


Fig1. Forward Characteristics

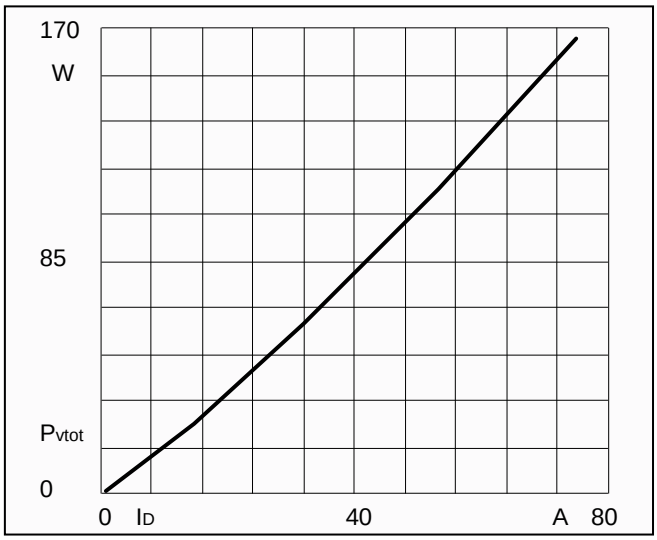


Fig2. Power dissipation

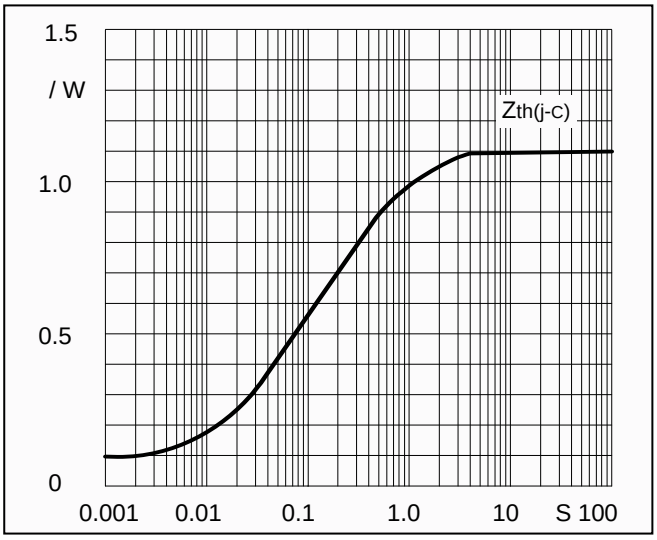


Fig3. Transient thermal impedance

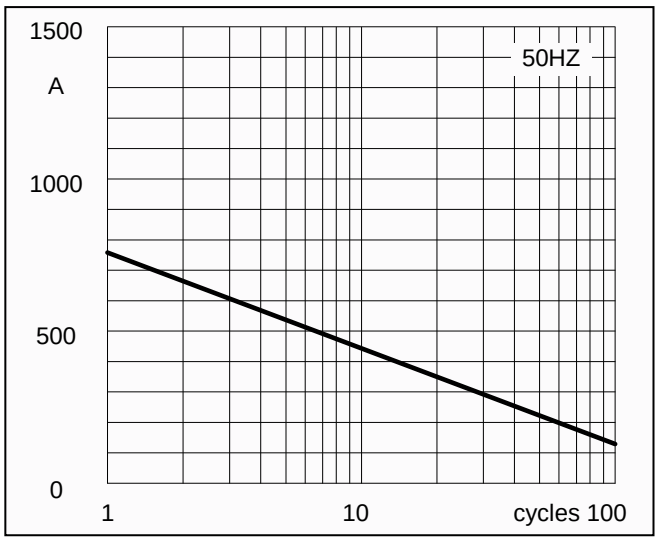


Fig4. Max Non-Repetitive Forward Surge Current

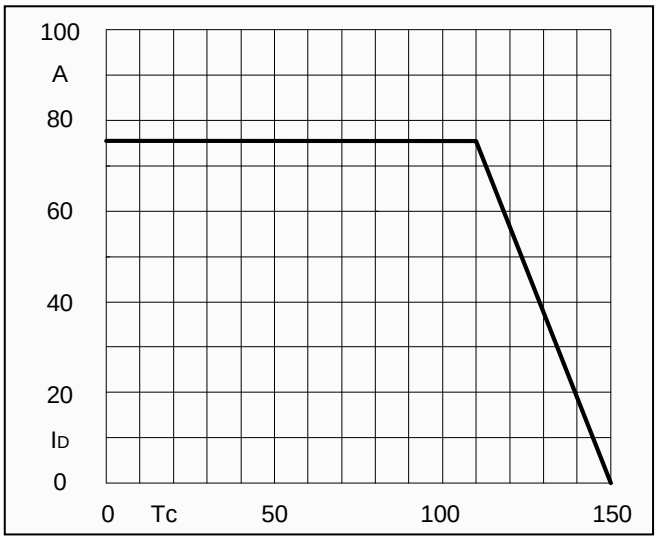
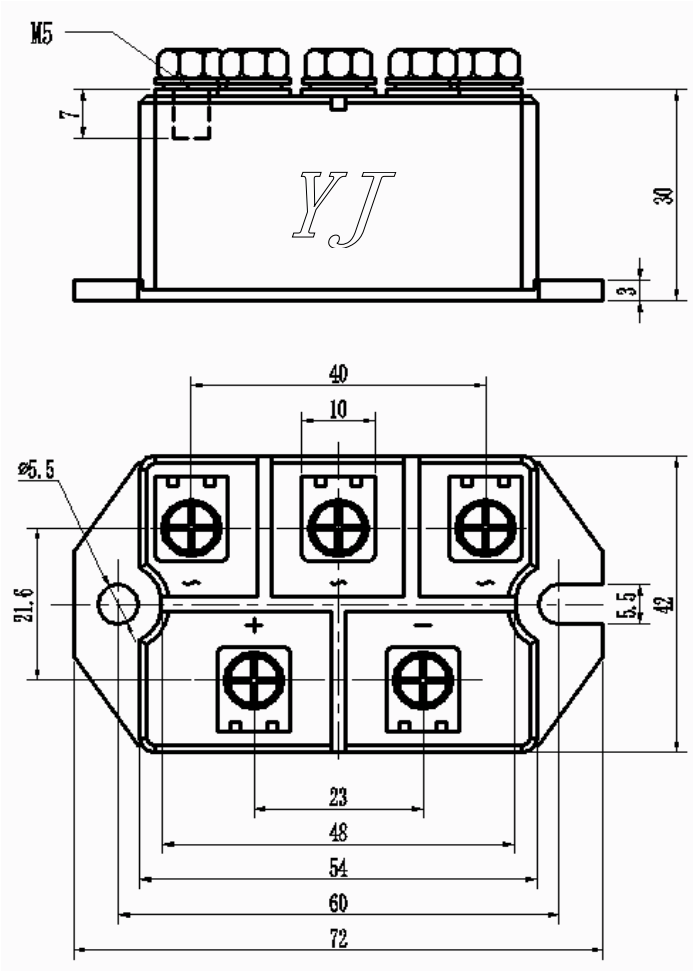


Fig5.Forward Current Derating Curve

Package Outline Information

CASE M2



Dimensions in mm