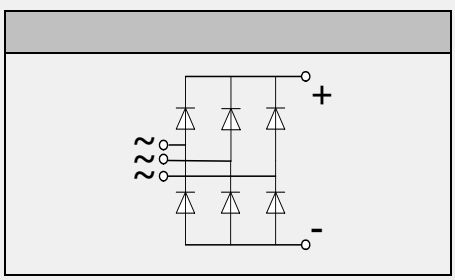
MD280S-M3

RoHS COMPLIANT



Glass Passivated Three Phase Rectifier Bridge

VRRM 800 to 1800V
ID 280 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

Module Type

TYPE	VRRM	VRSM
MD280S08M3	800V	900V
MD280S12M3	1200V	1300V
MD280S16M3	1600V	1700V
MD280S18M3	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100	280	A
IFSM	t=10mS Tvj =45	2550	A
i^2t	t=10mS Tvj =45	32500	A^2s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	
Tstg		-40 to +125	
Mt	To terminals(M6)	5±15%	Nm
Ms	To heat sink(M6)	5±15%	Nm
Weight	Module (Approximately)	230	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.3	/W
Rth(c-s)	Module (Approximately)	0.02	/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25 IF =280A		1.3	1.6	V
IRD	Tvj=25 VRD=VRRM Tvj=150 VRD=VRRM			0.5 6	mA mA

Performance Curves

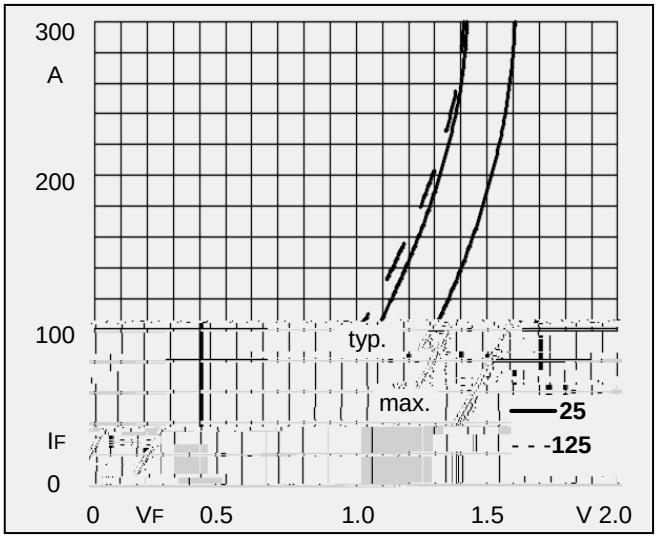


Fig1. Forward Characteristics

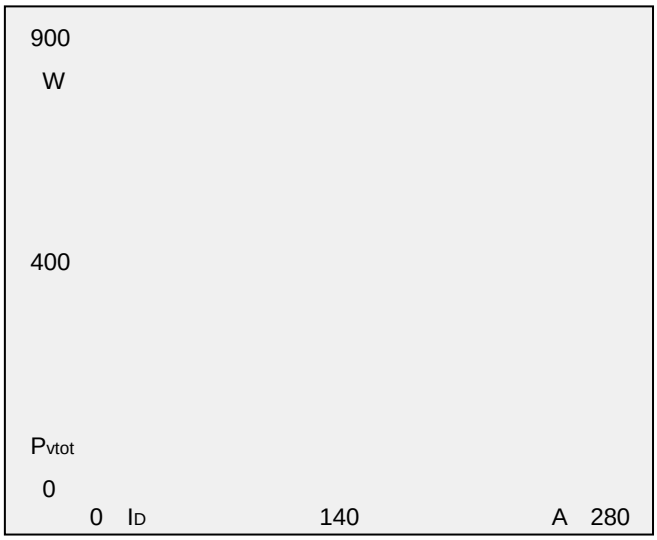


Fig2. Power dissipation

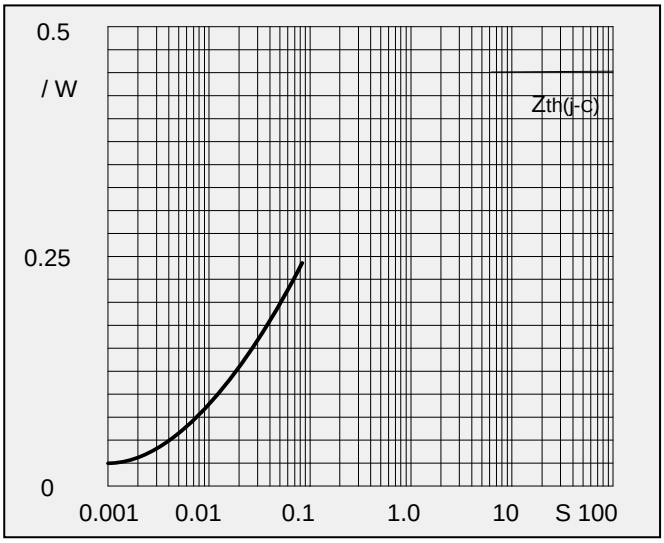


Fig3. Transient thermal impedance

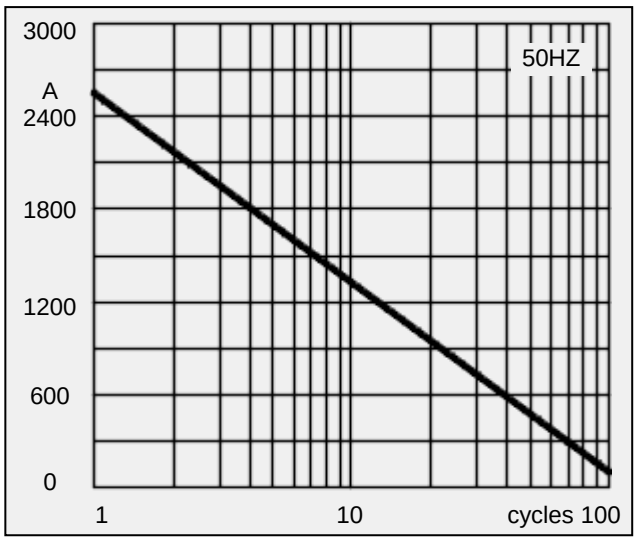


Fig4. Max Non-Repetitive Forward Surge Current

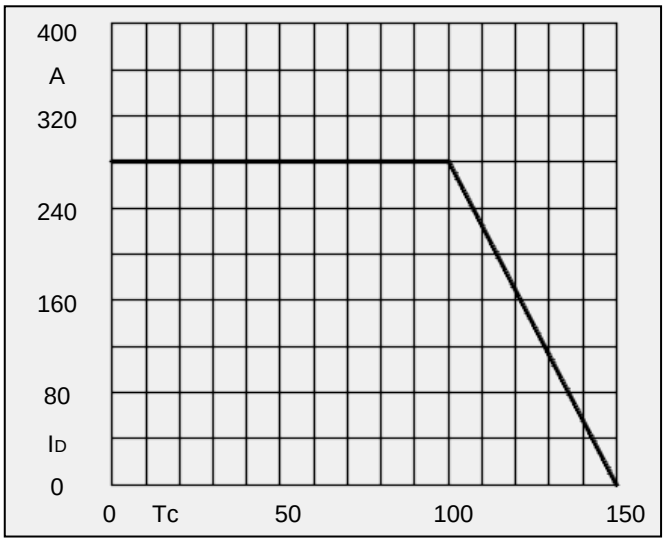
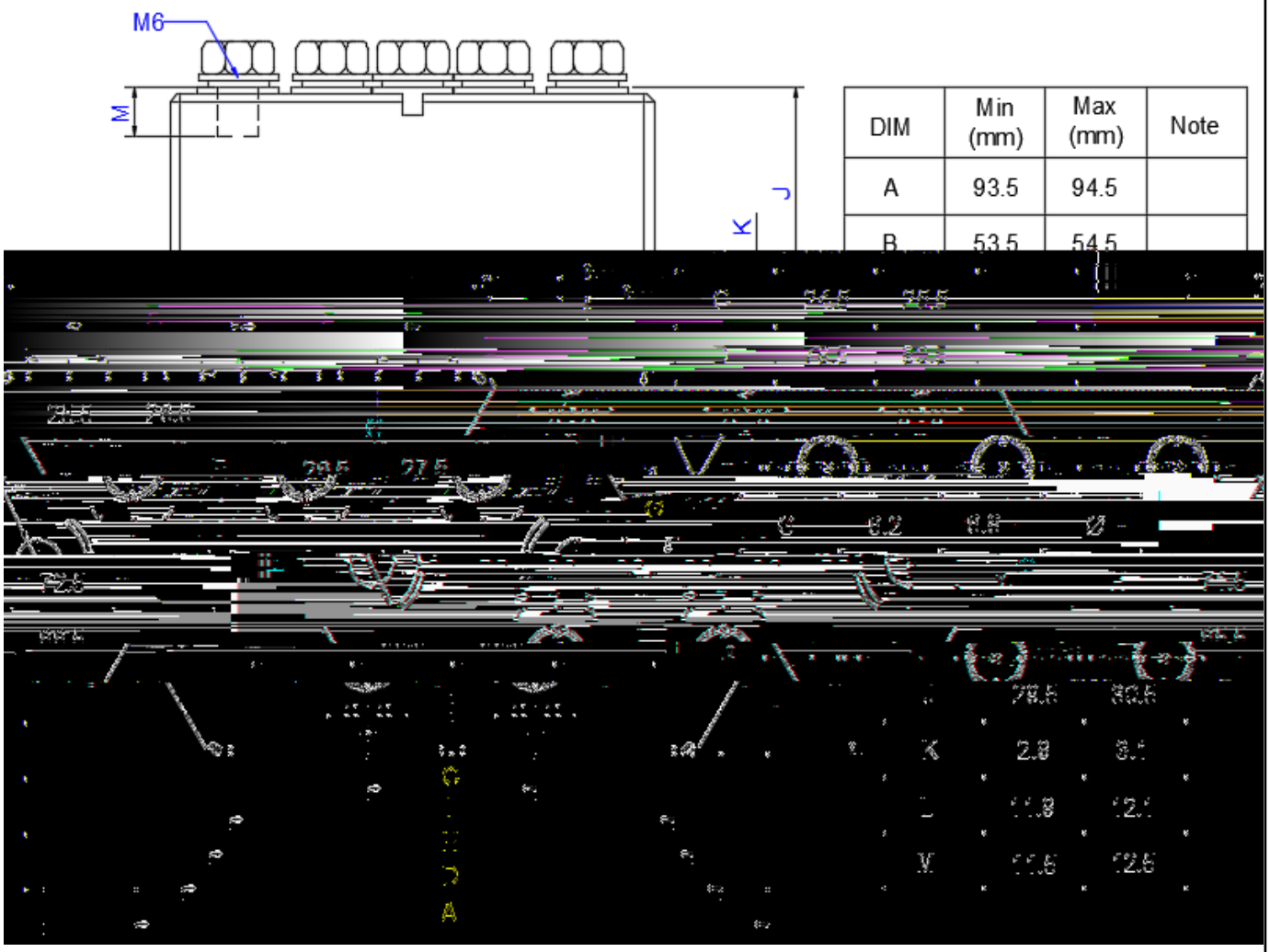


Fig5.Forward Current Derating Curve

Package Outline Information

CASE M3



DIM	Min (mm)	Max (mm)	Note
A	93.5	94.5	
B	53.5	54.5	