



Glass Passivated Three Phase Rectifier Bridge

Reverse Voltage 1200 - 1800 Volts
Forward Current - 250 Amperes

Features

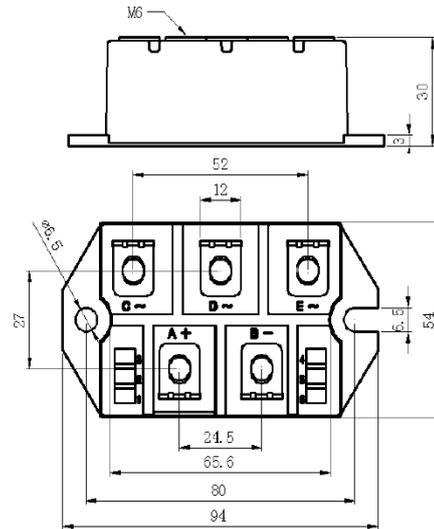
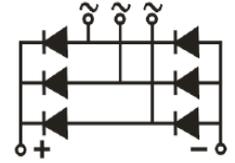
- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives

Mechanical Data

- Three phase bridge rectifier
- Blocking voltage: 1200 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip
- UL recognized applied for file no. E304417

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

M23G



Package Outline Dimensions in Millimeters

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Module Type

TYPE	VRRM	VRSM
MDS250G-12	1200V	1300V
MDS250G-16	1600V	1700V
MDS250G-18	1800V	1900V

Characteristics	Symbol	Values	Units
Three phase, full wave Tc=100°C	Id	250	A
t=10mS Tvj =45°C	IFSM	2800	A
t=10mS Tvj =45°C	I ² t	39200	A ² s
a.c.50HZ;r.m.s.;1min	Visol	3000	V
	Tvj	-40 to +150	°C
	Tstg	-40 to +125	°C
To terminals(M6)	Mt	5±15%	Nm
To heatsink(M6)	Ms	5±15%	Nm
Module (Approximately)	Weight	230	g
Module	Rth(j-c)	0.09	°C/W
Module	Rth(c-s)	0.025	°C/W
T=25°C IF =250A	VFM	1.45(TYP.) 1.70(MAX.)	V
Tvj=25°C VRD=VRRM	IRD	20(MAX.)	µA
Tvj=150°C VRD=VRRM		10(MAX.)	mA

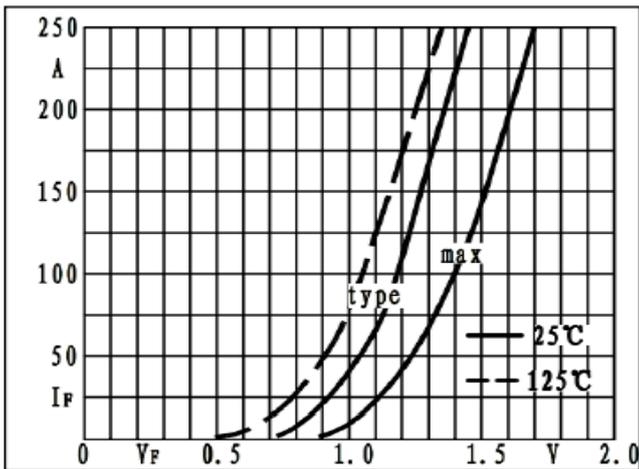


Fig1. Forward characteristics

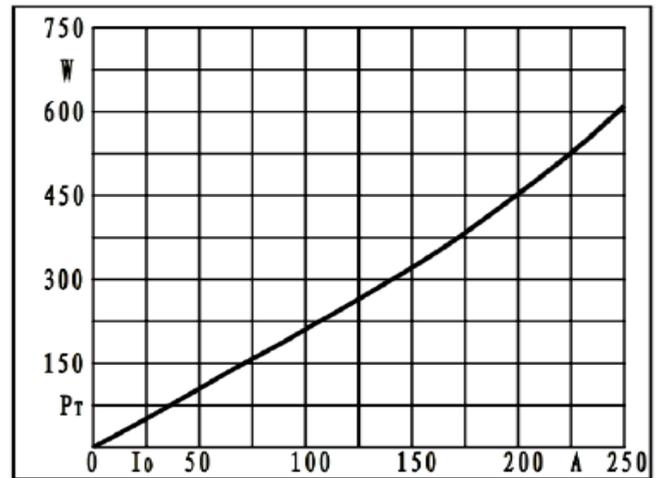


Fig2. Power dissipation

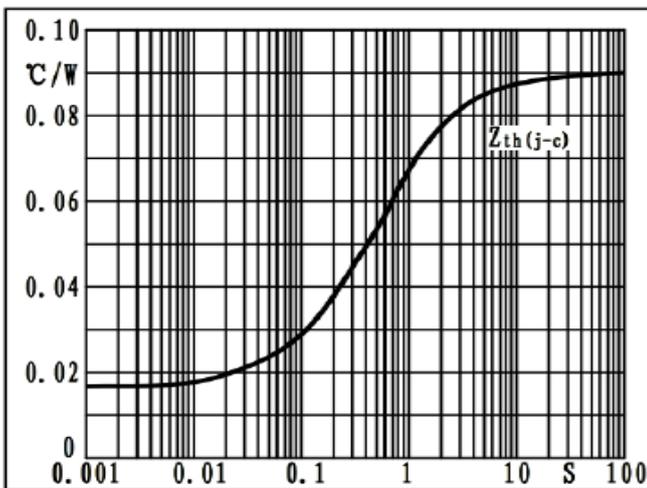


Fig3. Transient thermal impedance

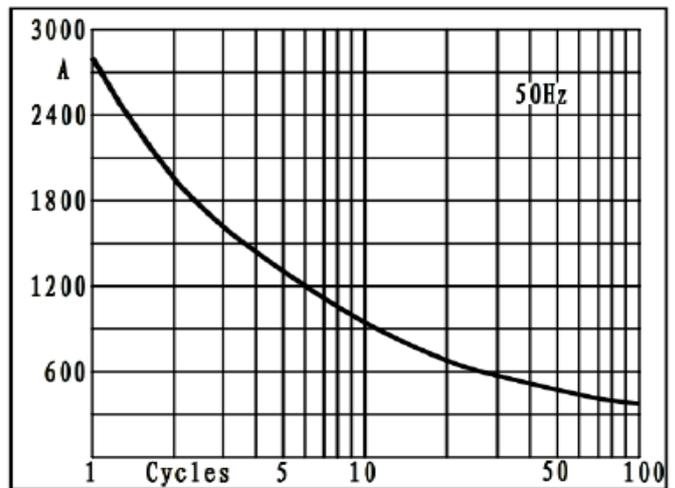


Fig4. Max non-repetitive forward surge current

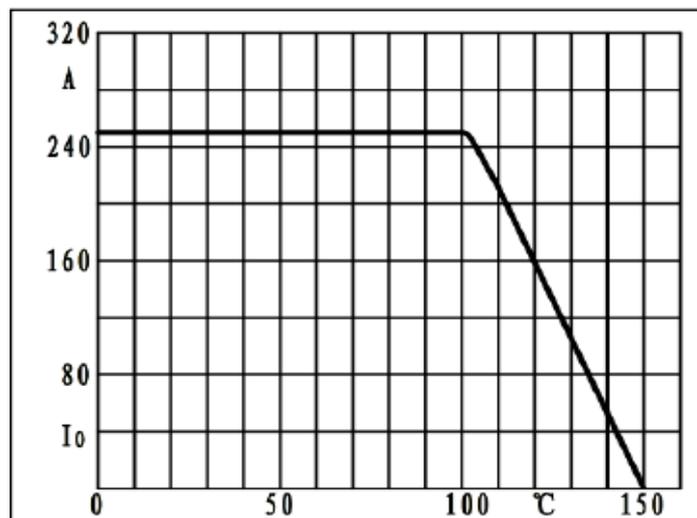


Fig5. Forward current derating curve

The curve above is for reference only.

MDS250G-*B-92-S001

Rev. 1, 17-Mar-2020



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