

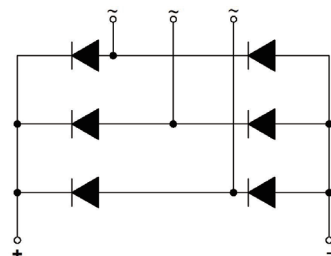
### MDS250-...FS Glass Passivated Three Phase Rectifier Bridge

#### 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: 1200 to 1800V
- ▶ Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- ▶ Glass passivated chip



#### Module Type

TYPE	VRRM	VRSM
MDS250-12FS	1200V	1300V
MDS250-16FS	1600V	1700V
MDS250-18FS	1800V	1900V

#### Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100°C	250	A
IFSM	t=10mS Tvj =45°C	2800	A
i²t	t=10mS Tvj =45°C	39200	A²s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
Mt	To terminals(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	220	g

#### Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Module	0.09	°C/W
Rth(c-s)	Module	0.025	°C/W

#### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =250A	—	1.45	1.70	V
IRD	Tvj=25°C VRD=VRRM	—	—	20	uA
	Tvj=150°C VRD=VRRM	—	—	10	mA

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#### Performance Curves

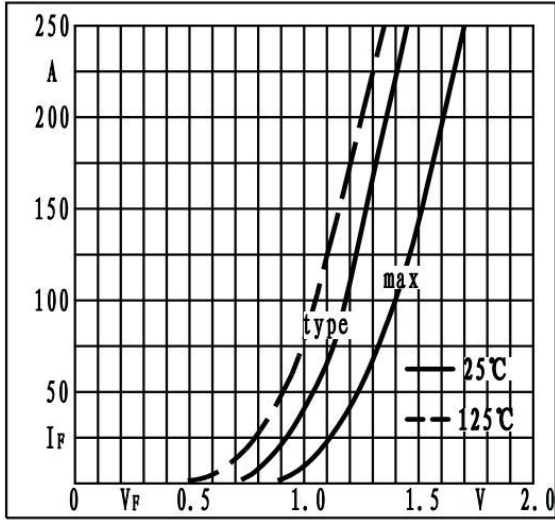


Fig1. Forward characteristics

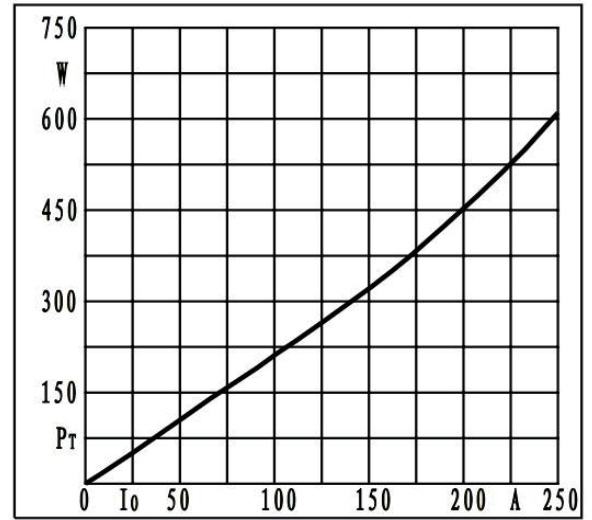


Fig2. Power dissipation

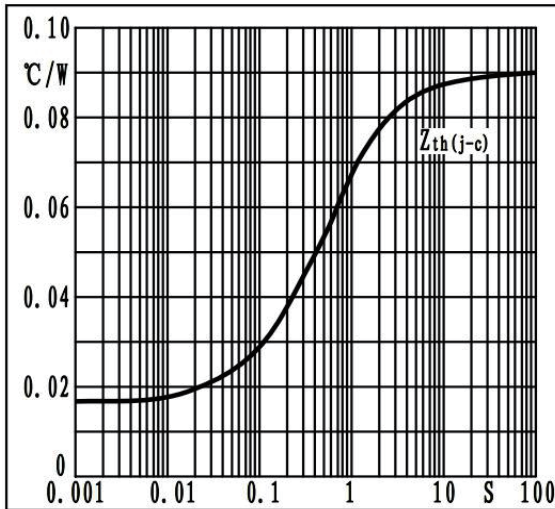


Fig3. Transient thermal impedance

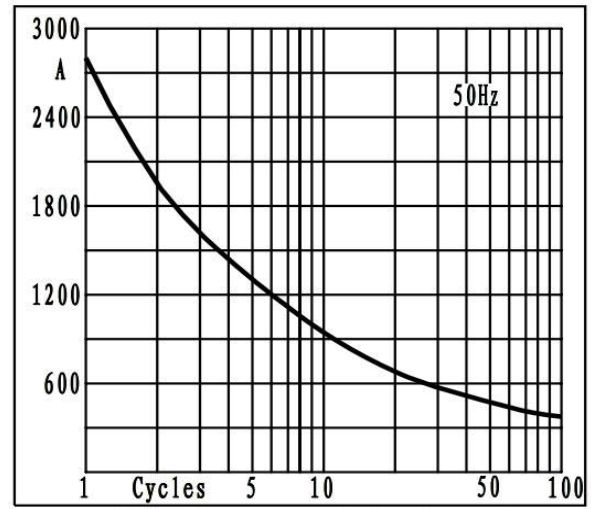


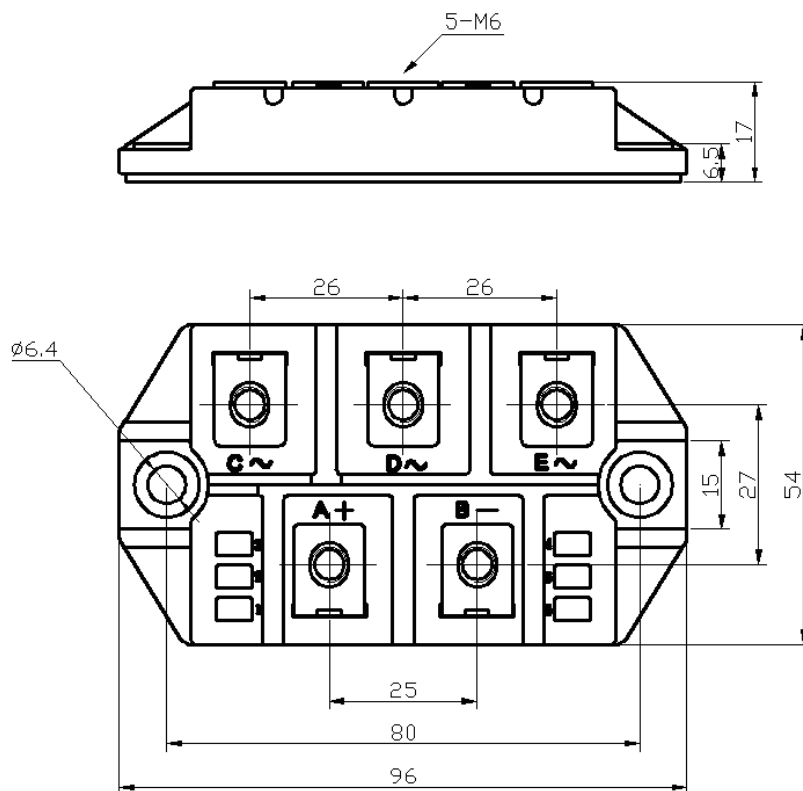
Fig4. Max non-repetitive forward surge current



Fig5. Forward current derating curve

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#### Package Outline Information



Dimensions in mm