

CURRENT 30~50 Ampere
VOLTAGE RANG 600 to 1800 Volts

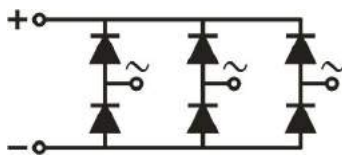
MDS30-16 THRU MDS50-16



Applications

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

Circuit



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
MDS30/50JC-12	1200V	1300V
MDS30/50JC-16	1600V	1700V
MDS30/50JC-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100°C	30/50	A
IFSM	t=10mS Tvj =45°C	280/460	A
i²t	t=10mS Tvj =45°C	1000	A²s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	100	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Module	0.28	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =50A	—	1.30	1.55	V
IRD	Tvj=25°C VRD=VRRM Tvj=150°C VRD=VRRM	—	—	10 5	µA mA

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RATING AND CHARACTERISTIC CURVES MDS30-16 Thru MDS50-16

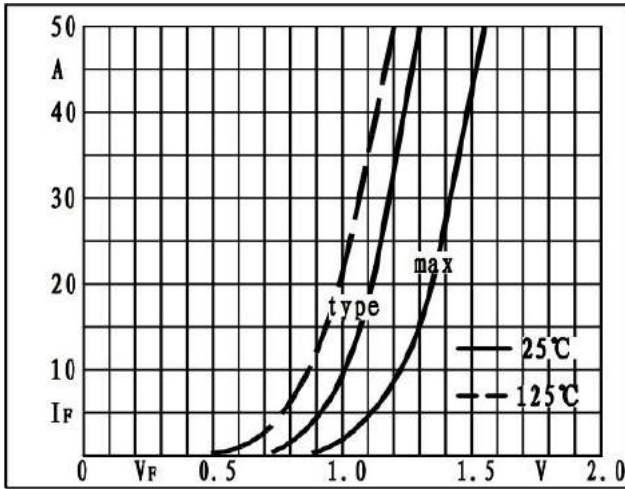


Fig1. Forward characteristics

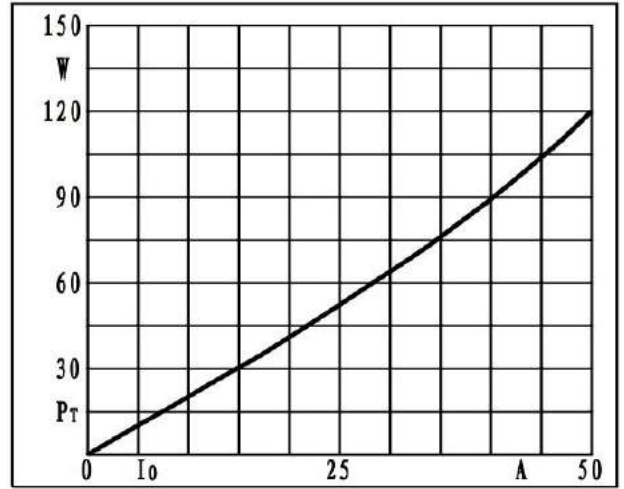


Fig2. Power dissipation

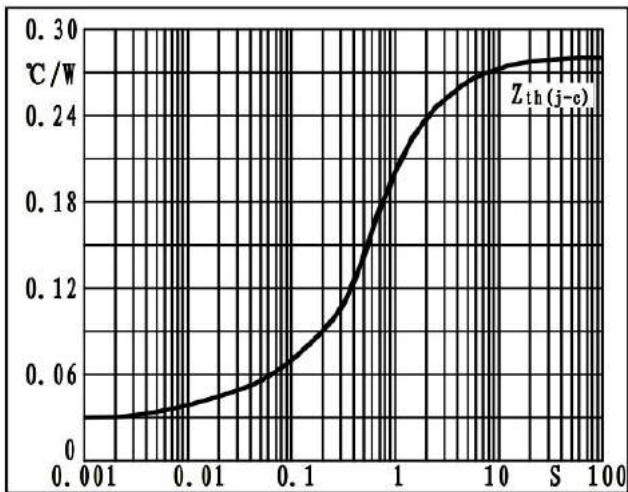


Fig3. Transient thermal impedance

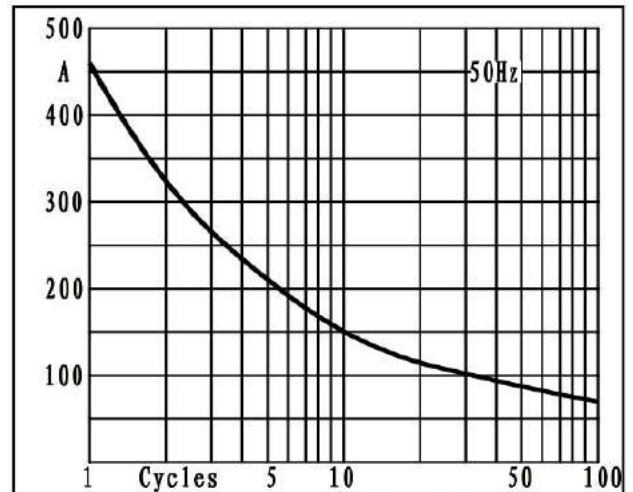


Fig4. Max non-repetitive forward surge current

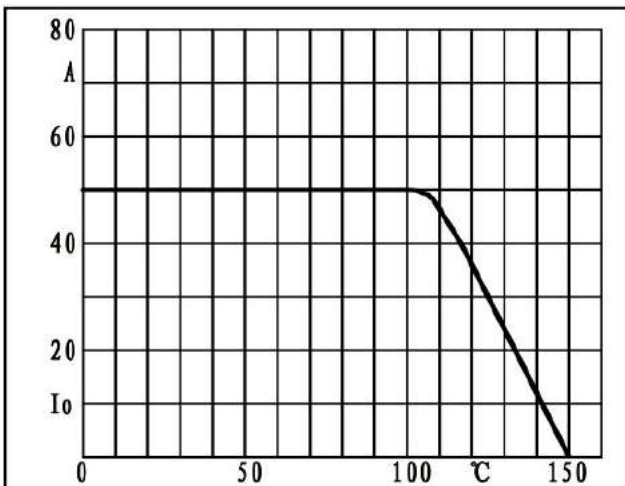


Fig5. Forward current derating curve

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Package Outline Information

