



# MDS100

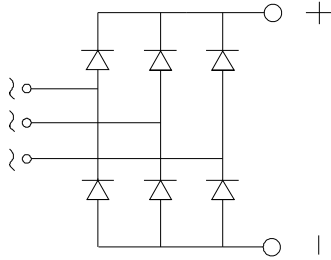


## Three Phase Rectifier Bridge

**VRRM** 800 to 1800V  
**ID** 100Amp

### 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

### Module Type

TYPE	VRRM	VRSM
MDS100-08	800V	900V
MDS100-12	1200V	1300V
MDS100-16	1600V	1700V
MDS100-18	1800V	1900V

### Maximum Ratings

Symbol	Conditions	Values	Units
$I_D$	$T_c=100^{\circ}\text{C}$	100	A
IFSM	$T_{vj}=45^{\circ}\text{C}$ $t=10\text{ms}$ (50HZ), sine	920	A
$i^2t$	$T_{vj}=45^{\circ}\text{C}$ $t=10\text{ms}$ (50HZ), sine	4200	$\text{A}^2\text{S}$
Viso	a.c.50HZ;r.m.s.;1 min	2500	V
$T_{vj}$		-40 to 150	$^{\circ}\text{C}$
$T_{stg}$		-40 to 125	$^{\circ}\text{C}$
Weight	Module (Approximately)	220	g

### Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per module	0.32	$^{\circ}\text{C}/\text{W}$

### Electrical Characteristics

Symbol	Conditions	Values	Units
VFM	$T=25^{\circ}\text{C}$ IFM=300A	1.90	V
IRD	$T_{vj}=25^{\circ}\text{C}$ VRD=VRRM	$\leq 0.5$	mA
	$T_{vj}=150^{\circ}\text{C}$ VRD=VRRM	$\leq 5$	mA



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## Performance Curves

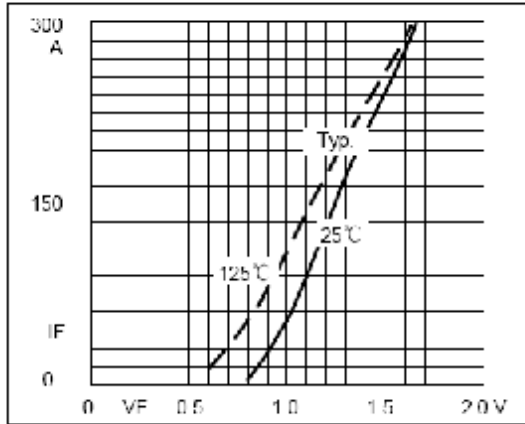


Fig1. Forward Characteristics

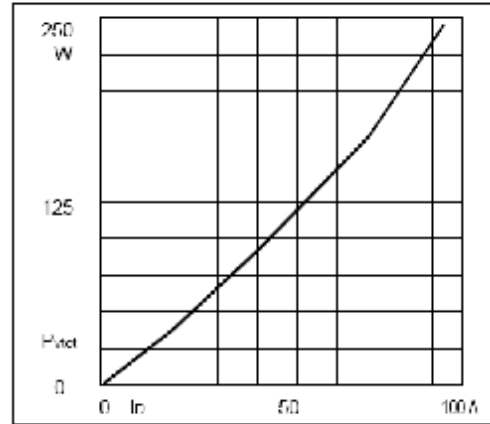


Fig2. Power dissipation

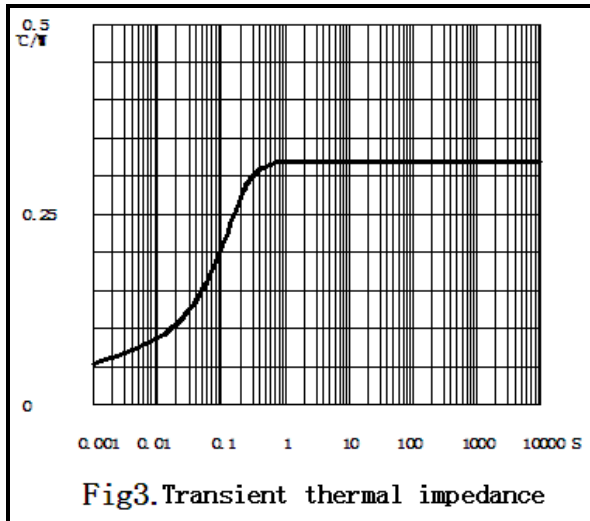


Fig3. Transient thermal impedance

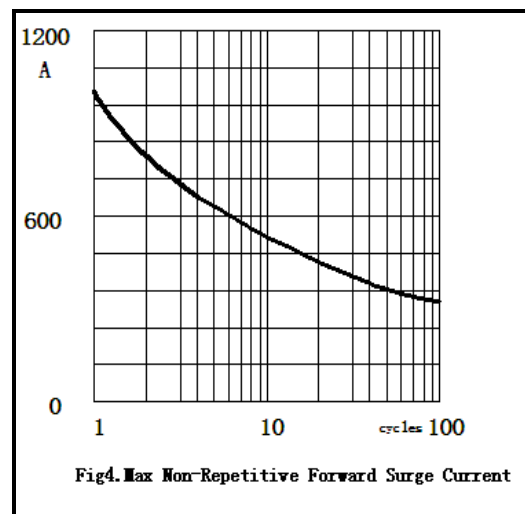


Fig4. Max Non-Repetitive Forward Surge Current

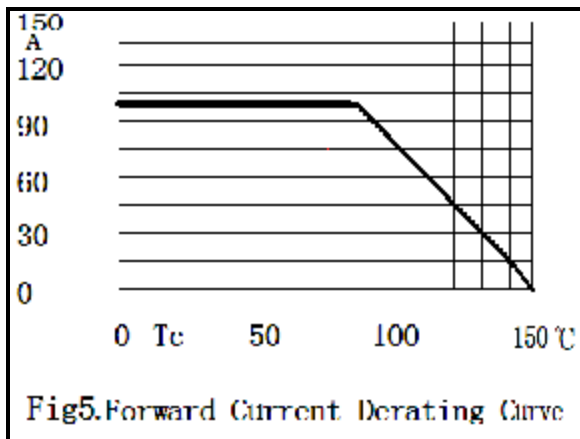
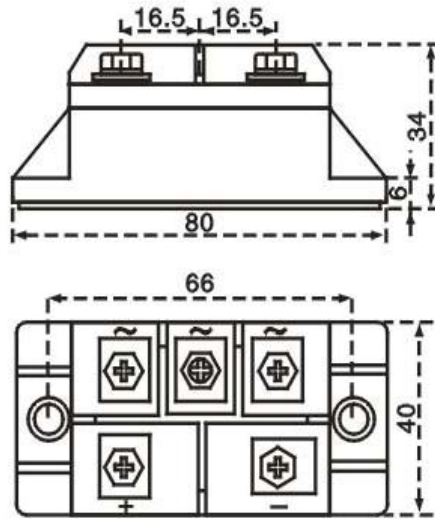


Fig5. Forward Current Derating Curve



Dimensions in mm