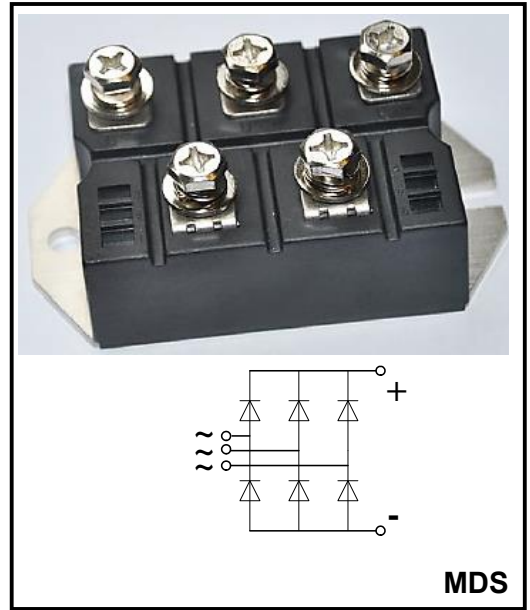


**Glass Passivated Three Phase Rectifier Bridge**

$V_{RRM} = 800\text{ V} - 1800\text{ V}$

$I_D = 200\text{ A}$



**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 DCB ceramic isolated metal baseplate
- ▾ Glass passivated chip

**Module Type**

Parameter	Symbols	MDS200-08	MDS200-12	MDS200-16	MDS200-18	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	800V	1200V	1600V	1800V	V
Maximum RMS voltage	$V_{RMS}$	900V	1300V	1700V	1900V	V

**Maximum Ratings**

Symbol	Conditions	Values	Units
$I_D$	$T_c=100^\circ\text{C}$	200	A
$I_{FSM}$	$t=10\text{mS } T_{vj}=45^\circ\text{C}$	2240	A
$i^2t$	$t=10\text{mS } T_{vj}=45^\circ\text{C}$	25000	$\text{A}^2\text{s}$
$V_{isol}$	a.c.50Hz;r.m.s.;1min	3000	V
$T_{vj}$		-40 to 150	$^\circ\text{C}$
$T_{stg}$		-40 to 125	$^\circ\text{C}$
$M_t$	To terminals(M6)	$5\pm 15\%$	Nm
$M_s$	To heatsink(M6)	$5\pm 15\%$	Nm
Weight	Module	230	g

**Thermal Characteristics**

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.45	$^\circ\text{C/W}$
$R_{th(c-s)}$	Module	0.025	$^\circ\text{C/W}$

**Electrical Characteristics**

Symbol	Conditions	Values	Units
$V_{FM}$	$T=25^\circ\text{C } I_{FM}=300\text{A}$	1.55	V
$I_{RD}$	$T_{vj}=25^\circ\text{C } V_{RD}=V_{RRM}$ $T_{vj}=150^\circ\text{C } V_{RD}=V_{RRM}$	$\leq 0.3$ $\leq 5$	mA mA

Performance Curves

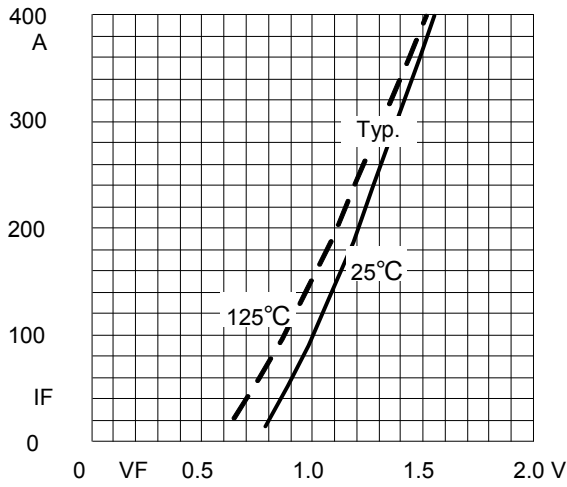


Fig1. Forward Characteristics

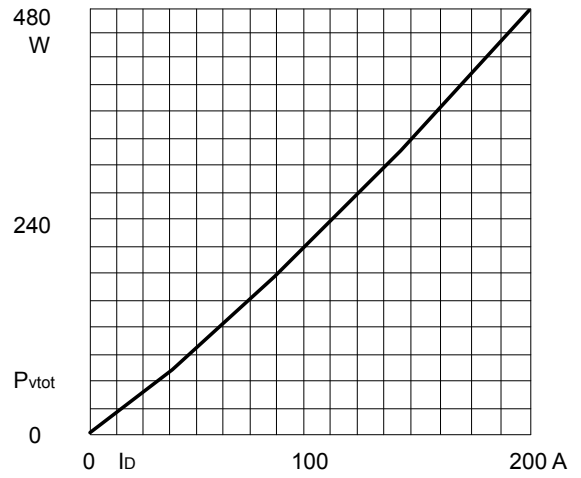


Fig2. Power dissipation

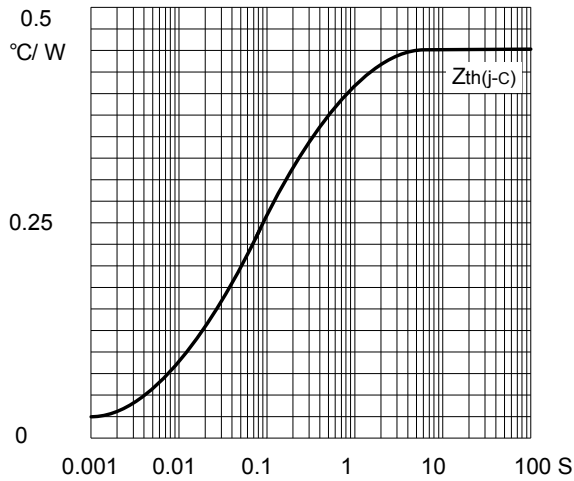


Fig3. Transient thermal impedance

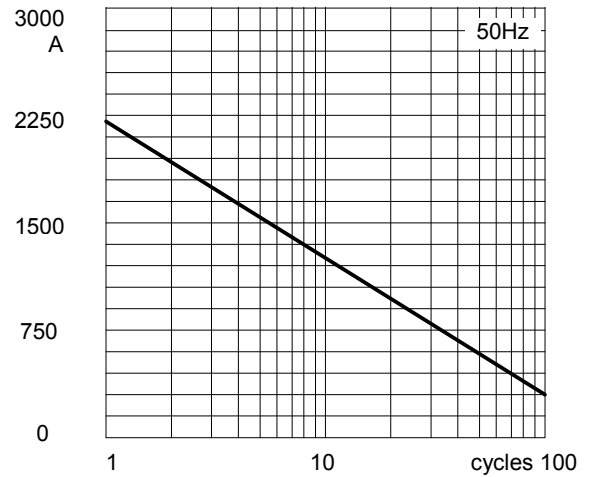


Fig4. Max Non-Repetitive Forward Surge Current

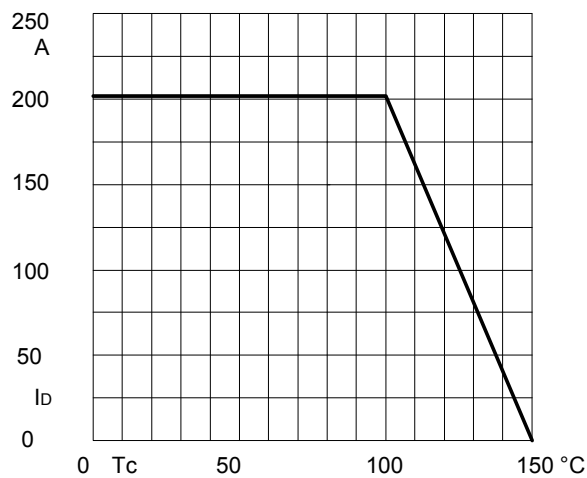
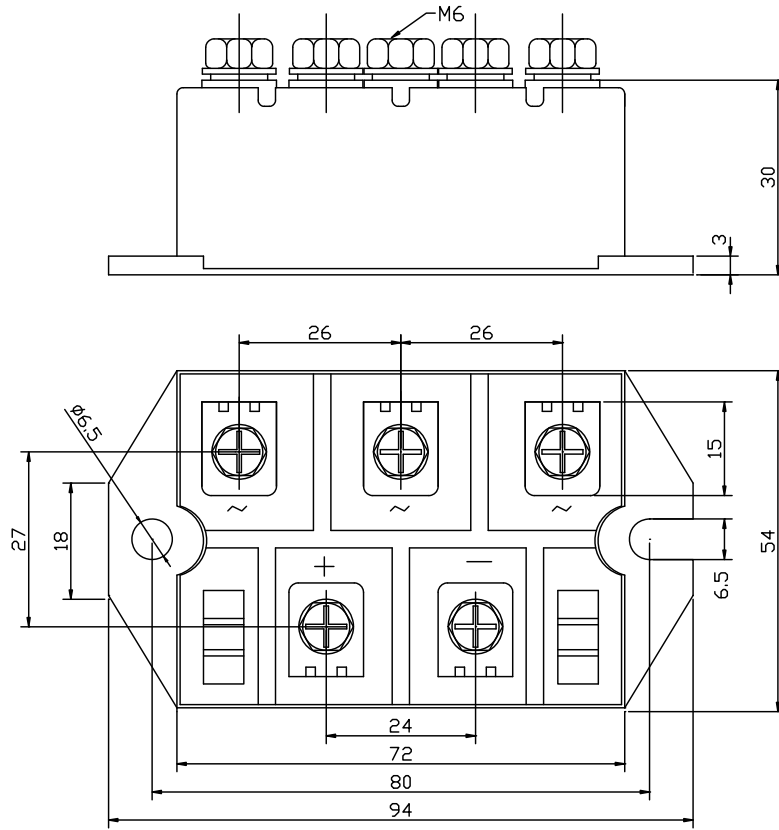


Fig5. Forward Current Derating Curve

Package Outline Information

MDS



Dimensions in mm