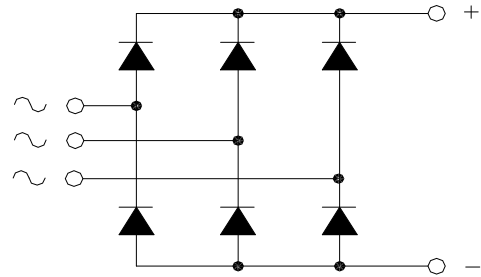


## MTS50

### POWER RECTIFIER BRIDGE

Output Current **50 A**



$V_{RRM}$	$V_{RSM}$	P/N
400	500	MTS50.04
600	700	MTS50.06
800	900	MTS50.08
1200	1300	MTS50.12
1600	1700	MTS50.16

#### Features

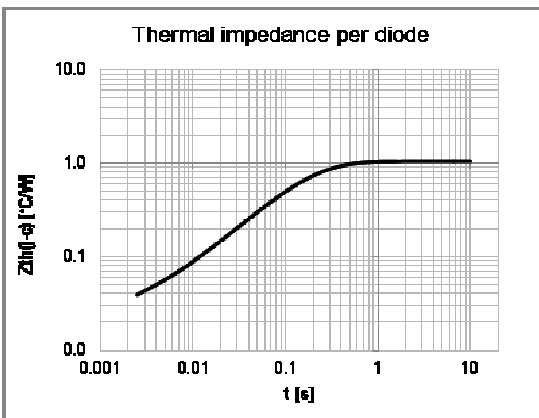
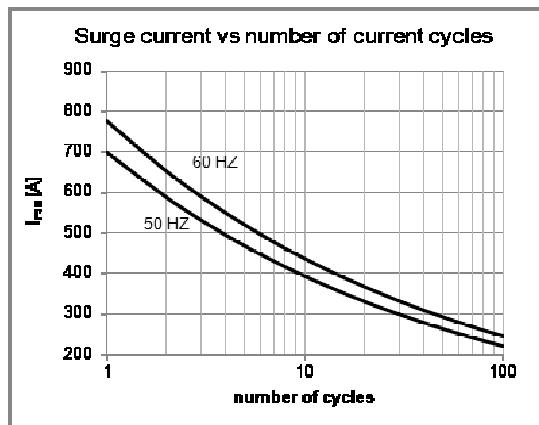
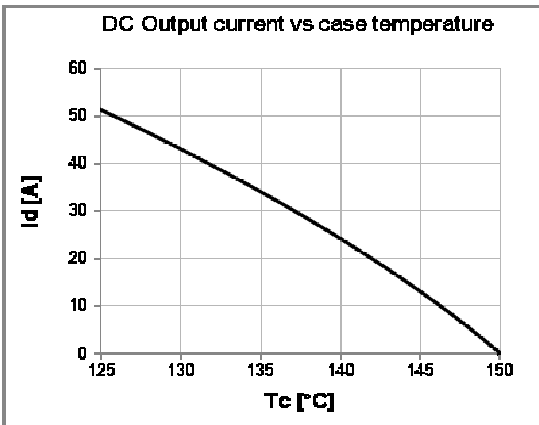
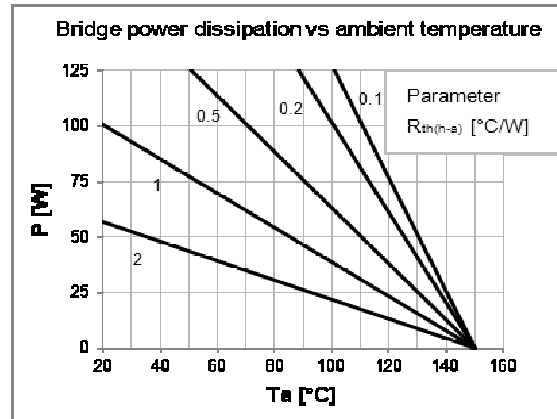
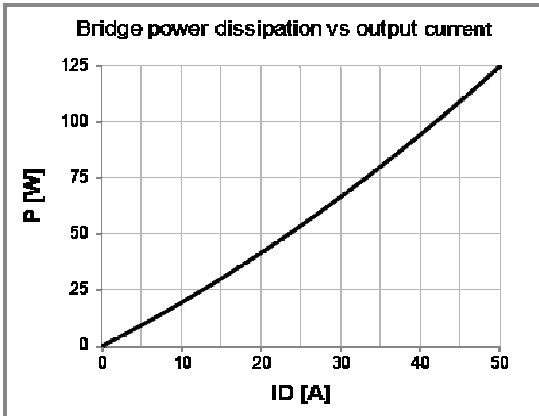
- Low forward voltage diodes for high surge capability
- Low thermal impedance packaging
- Electrically insulated case

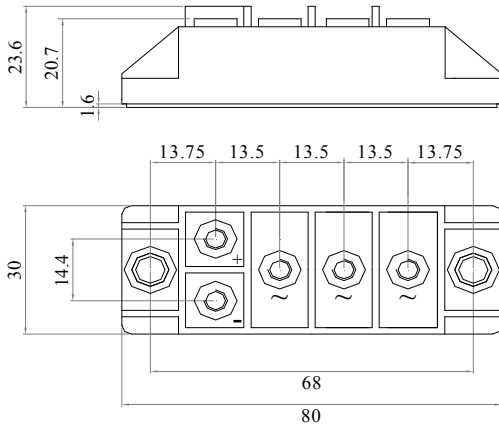
#### Applications

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

Diodes characteristics		Conditions	$T_j$ [°C]	Value
$I_{RRM}$	Max repetitive peak reverse current	$V = V_{RRM}$	150	4 mA
$V_{F(TO)}$	Threshold voltage		150	0,9 V
$r_F$	Forward slope resistance		150	7,0 mΩ
$V_{FM}$	Peak forward voltage, max	$I_F = 100A$	25	1,7 V
$I_{FSM}$	Surge forward current	Half sine wave, 10 ms	150	700 A
$I^2t$	Max $I^2t$ for fusing		150	2450 A <sup>2</sup> s
$T_{jmax}$	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		1,04 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		1,16 °C/W

Module characteristics		Conditions	Value
$I_D$	DC output current	$T_c = 126$ °C	50 A
$I_D$	DC output current	$T_a = 40$ °C ; freely suspended	6 A
$V_{INS}$	RMS Insulating voltage	50 / 60 Hz $t = 1$ s ( $i < 1$ mA)	3600 V
$V_{INS}$	RMS Insulating voltage	50 / 60 Hz $t = 60$ s ( $i < 1$ mA)	3000 V
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation	0,174 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,193 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased	0,100 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Freely suspended or mounted on an insulator	9,0 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Mounted on a painted metal sheet 250x250x1 mm	3,5 °C/W
$T_{stg}$	Max storage temperature		150 °C
$W$	Weight		85 g
$M_1$	Mounting torque, ± 15 %		4,5 N·m
			40 lb·inch
$M_2$	Terminal connection torque, ± 15 %		3,0 N·m
			26 lb·inch




**Fig.1**

MTS50.04-SS5-FIX5-HP-P68-TA

Code:970000500006

MTS50.06-SS5-FIX5-HP-P68-TA

Code:970000500013

MTS50.08-SS5-FIX5-HP-P68-TA

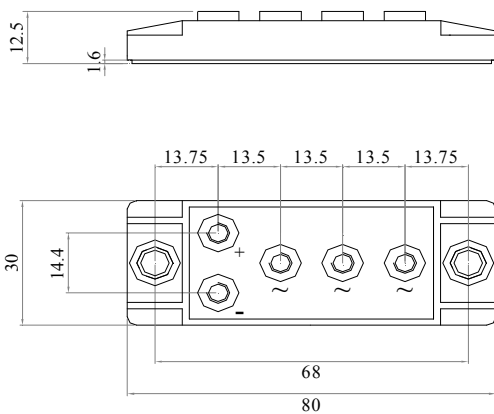
Code:970000500020

MTS50.12-SS5-FIX5-HP-P68-TA

Code:970000500027

MTS50.16-SS5-FIX5-HP-P68-TA

Code:970000500034


**Fig.2**

MTS50.04-SS5-FIX5-LP-P68-TA

Code:970000500005

MTS50.06-SS5-FIX5-LP-P68-TA

Code:970000500012

MTS50.08-SS5-FIX5-LP-P68-TA

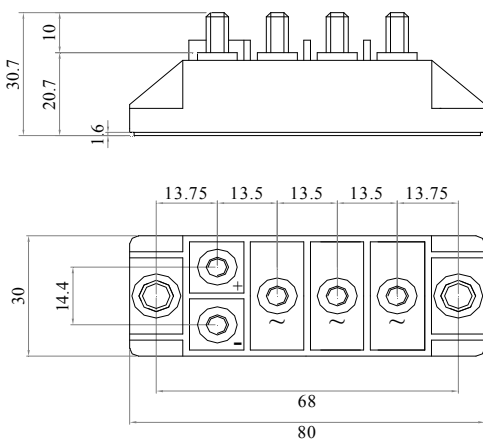
Code:970000500019

MTS50.12-SS5-FIX5-LP-P68-TA

Code:970000500026

MTS50.16-SS5-FIX5-LP-P68-TA

Code:970000500033


**Fig.3**

MTS50.04-MM5x10-FIX5-HP-P68-TA

Code:970000500004

MTS50.06-MM5x10-FIX5-HP-P68-TA

Code:970000500011

MTS50.08-MM5x10-FIX5-HP-P68-TA

Code:970000500018

MTS50.12-MM5x10-FIX5-HP-P68-TA

Code:970000500025

MTS50.16-MM5x10-FIX5-HP-P68-TA

Code:970000500032

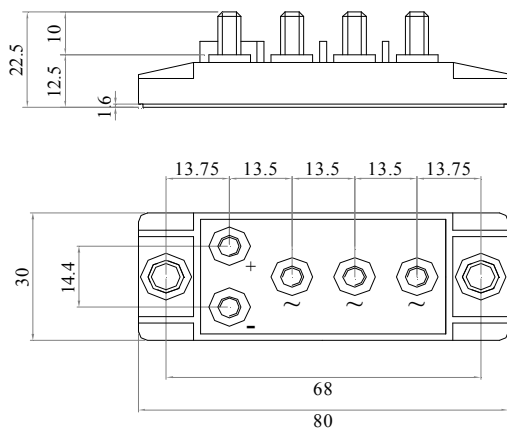
**Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V**
**Power fix:**

SS=Screw (M5)

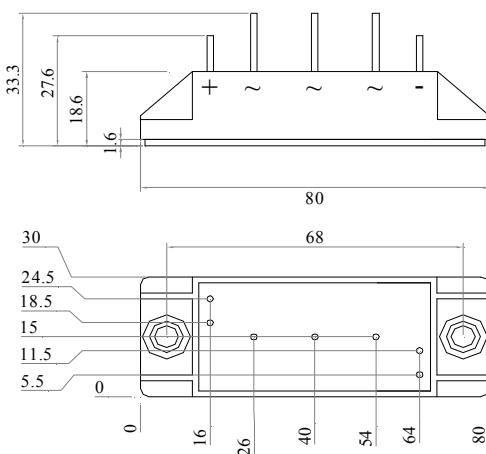
MM=Bolt (M5)

**Mounting fix:**

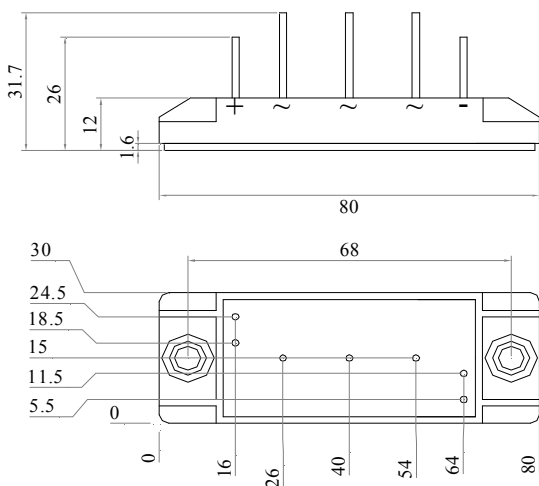
FIX= Ø5,5



**Fig.4** MTS50.04-MM5x10-FIX5-LP-P68-TA  
Code:970000500003  
MTS50.06-MM5x10-FIX5-LP-P68-TA  
Code:970000500010  
MTS50.08-MM5x10-FIX5-LP-P68-TA  
Code:970000500017  
MTS50.12-MM5x10-FIX5-LP-P68-TA  
Code:970000500024  
MTS50.16-MM5x10-FIX5-LP-P68-TA  
Code:970000500031



**Fig.5** MTS50.04-LL-FIX5-HP-P68-TA  
Code:970000500002  
MTS50.06-LL-FIX5-HP-P68-TA  
Code:970000500009  
MTS50.08-LL-FIX5-HP-P68-TA  
Code:970000500016  
MTS50.12-LL-FIX5-HP-P68-TA  
Code:970000500023  
MTS50.16-LL-FIX5-HP-P68-TA  
Code:970000500030



**Fig.6** MTS50.04-LL-FIX5-LP-P68-TA  
Code:970000500001  
MTS50.06-LL-FIX5-LP-P68-TA  
Code:970000500008  
MTS50.08-LL-FIX5-LP-P68-TA  
Code:970000500015  
MTS50.12-LL-FIX5-LP-P68-TA  
Code:970000500022  
MTS50.16-LL-FIX5-LP-P68-TA  
Code:970000500029

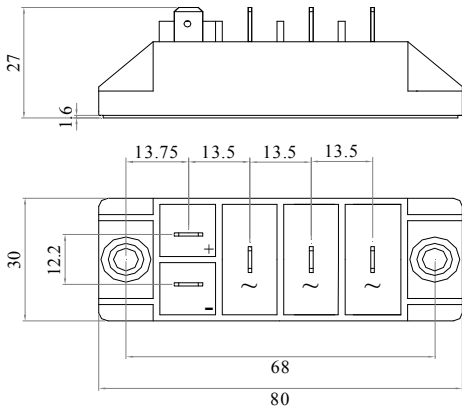
**Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V**

**Power fix:**

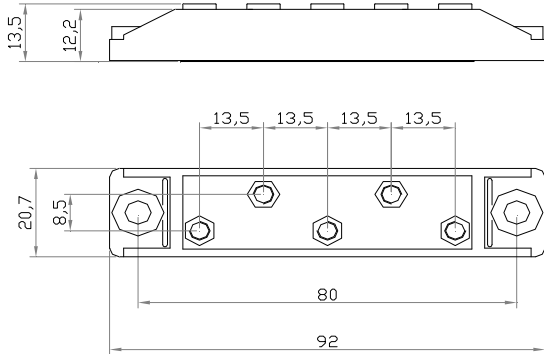
MM=Bolt (M5)  
LL=Legs (Ø1,2)

**Mounting fix:**

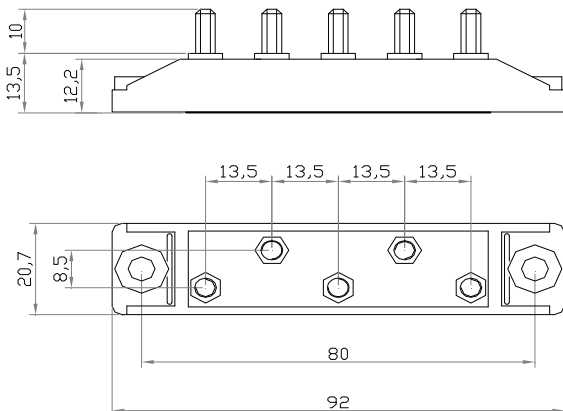
FIX= Ø5,5



**Fig.7** MTS50.04-FF-FIX5-HP-P68-TA  
Code:970000500000  
MTS50.06-FF-FIX5-HP-P68-TA  
Code:970000500007  
MTS50.08-FF-FIX5-HP-P68-TA  
Code:970000500014  
MTS50.12-FF-FIX5-HP-P68-TA  
Code:970000500021  
MTS50.16-FF-FIX5-HP-P68-TA  
Code:970000500028



**Fig.8** MTS50.04-SS4-FIX5-LP-P80-TF  
Code:970000500090  
MTS50.06-SS4-FIX5-LP-P80-TF  
Code:970000500091  
MTS50.08-SS4-FIX5-LP-P80-TF  
Code:970000500092  
MTS50.12-SS4-FIX5-LP-P80-TF  
Code:970000500093  
MTS50.16-SS4-FIX5-LP-P80-TF  
Code:970000500094



**Fig.9** MTS50.04-MM4x10-FIX5-LP-P80-TF  
Code:970000500095  
MTS50.06-MM4x10-FIX5-LP-P80-TF  
Code:970000500096  
MTS50.08-MM4x10-FIX5-LP-P80-TF  
Code:970000500097  
MTS50.12-MM4x10-FIX5-LP-P80-TF  
Code:970000500098  
MTS50.16-MM4x10-FIX5-LP-P80-TF  
Code:970000500099

**Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V**

**Power fix:**

FF=Faston(6,3x0,8)

SS=Screw (M4)

MM=Bolt (M4)

**Mounting fix:**

FIX= Ø5,5