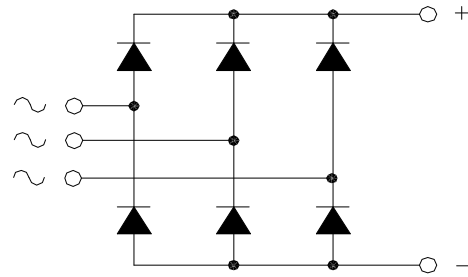


MTS70

POWER RECTIFIER BRIDGE

Output Current **70 A**



V_{RRM}	V_{RSM}	P/N
400	500	MTS70.04
600	700	MTS70.06
800	900	MTS70.08
1200	1300	MTS70.12
1600	1700	MTS70.16

Features

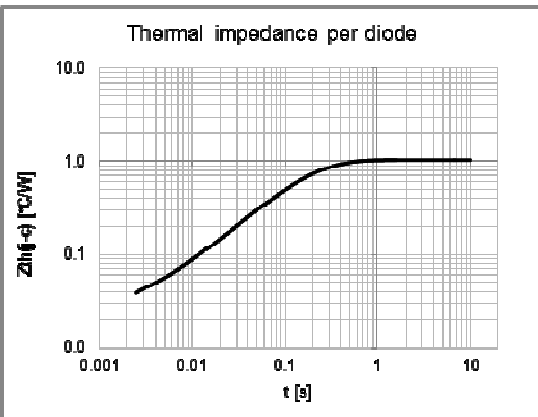
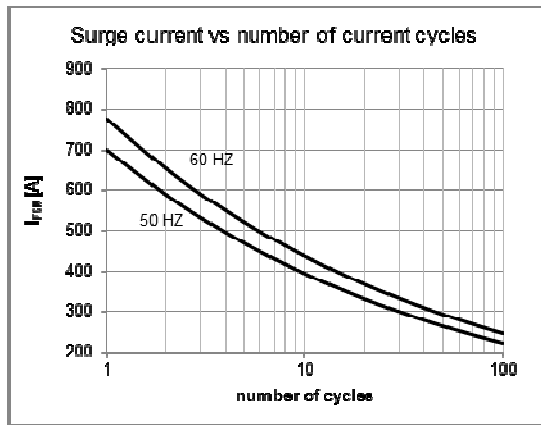
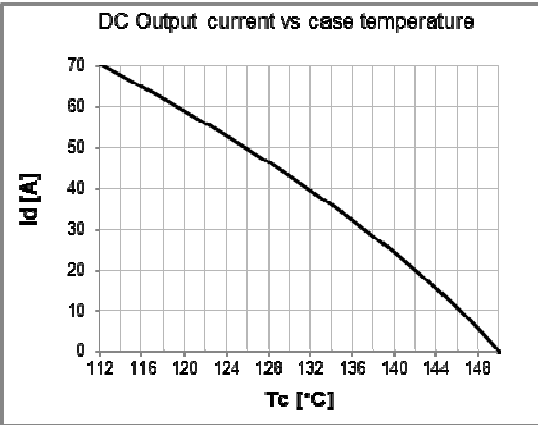
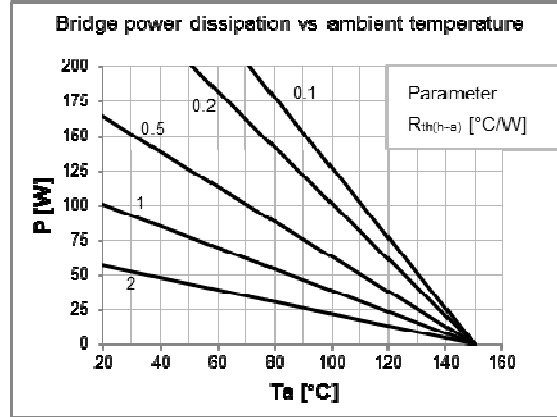
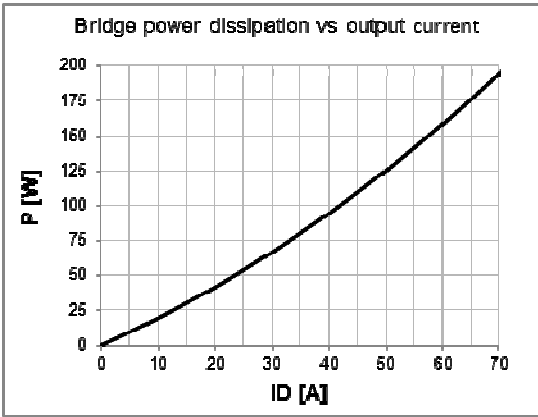
- Low forward voltage diodes for high surge capability
- Low thermal impedance packaging
- Electrically insulated case

Applications

- Input rectifier for variable frequency drives
- Battery charger rectifiers
- Single 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 ² 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	$T_c = 112$ °C	70 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
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



(dimensions in mm)

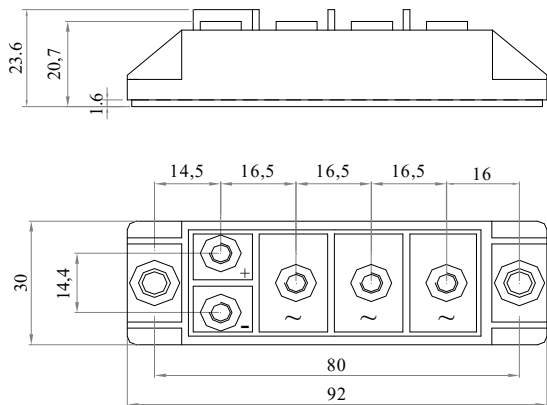


Fig.1

MTS70.04-SS5-FIX5-HP-P80-TA
Code:970000700003
MTS70.06-SS5-FIX5-HP-P80-TA
Code:970000700011
MTS70.08-SS5-FIX5-HP-P80-TA
Code:970000700019
MTS70.12-SS5-FIX5-HP-P80-TA
Code:970000700027
MTS70.16-SS5-FIX5-HP-P80-TA
Code:970000700035

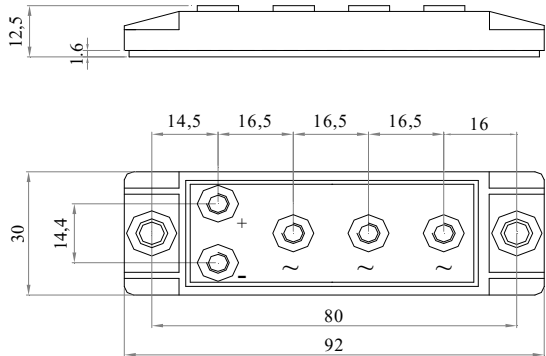


Fig.2

MTS70.04-SS5-FIX5-LP-P80-TA
Code:970000700002
MTS70.06-SS5-FIX5-LP-P80-TA
Code:970000700010
MTS70.08-SS5-FIX5-LP-P80-TA
Code:970000700018
MTS70.12-SS5-FIX5-LP-P80-TA
Code:970000700026
MTS70.16-SS5-FIX5-LP-P80-TA
Code:970000700034

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

Power fix:
SS=Screw (M5)

Mounting fix:
FIX= Ø5,5

(dimensions in mm)

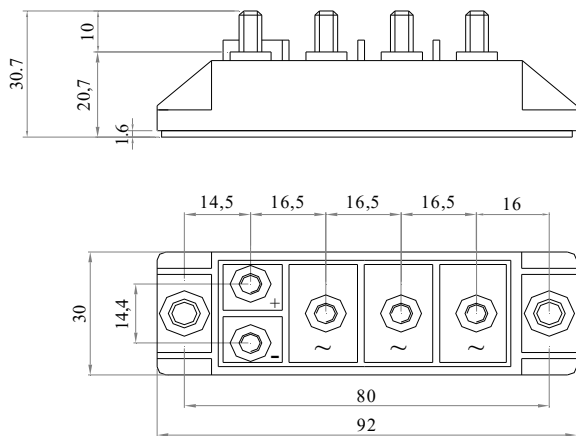


Fig.3

- MTS70.04-MM5x10-FIX5-HP-P80-TA
Code:970000700001
- MTS70.06-MM5x10-FIX5-HP-P80-TA
Code:970000700009
- MTS70.08-MM5x10-FIX5-HP-P80-TA
Code:970000700017
- MTS70.12-MM5x10-FIX5-HP-P80-TA
Code:970000700025
- MTS70.16-MM5x10-FIX5-HP-P80-TA
Code:970000700033

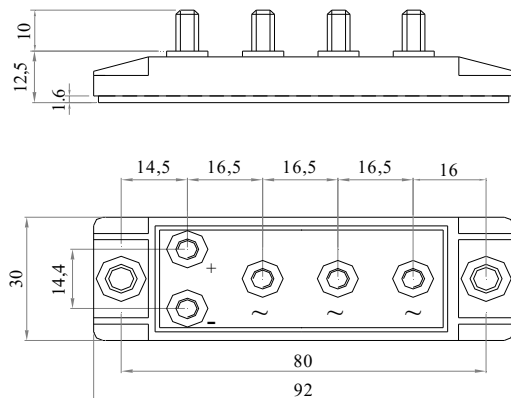


Fig.4

- MTS70.04-MM5x10-FIX5-LP-P80-TA
Code:970000700000
- MTS70.06-MM5x10-FIX5-LP-P80-TA
Code:970000700008
- MTS70.08-MM5x10-FIX5-LP-P80-TA
Code:970000700016
- MTS70.12-MM5x10-FIX5-LP-P80-TA
Code:970000700024
- MTS70.16-MM5x10-FIX5-LP-P80-TA
Code:970000700032

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

Power fix:
MM=Bolt (M5)

Mounting fix:
FIX= Ø5,5

(dimensions in mm)

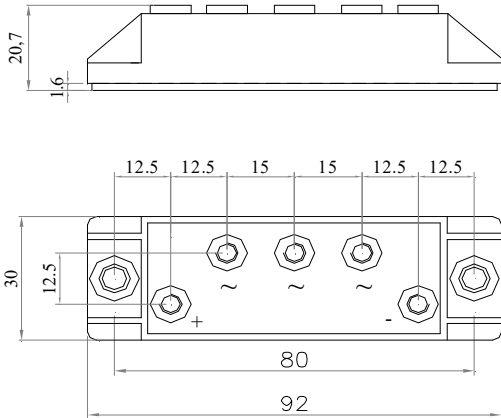


Fig.5 MTS70.04-SS5-FIX5-HP-P80-TB
Code:970000700007
MTS70.06-SS5-FIX5-HP-P80-TB
Code:970000700015
MTS70.08-SS5-FIX5-HP-P80-TB
Code:970000700023
MTS70.12-SS5-FIX5-HP-P80-TB
Code:970000700031
MTS70.16-SS5-FIX5-HP-P80-TB
Code:970000700039

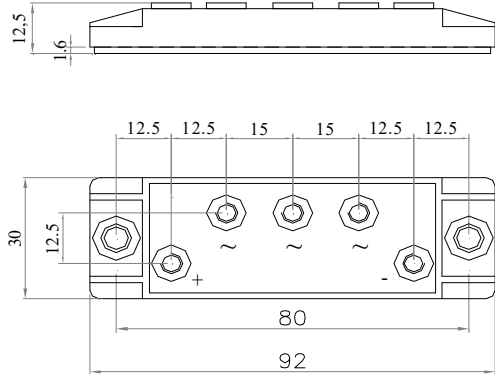


Fig.6 MTS70.04-SS5-FIX5-LP-P80-TB
Code:970000700006
MTS70.06-SS5-FIX5-LP-P80-TB
Code:970000700014
MTS70.08-SS5-FIX5-LP-P80-TB
Code:970000700022
MTS70.12-SS5-FIX5-LP-P80-TB
Code:970000700030
MTS70.16-SS5-FIX5-LP-P80-TB
Code:970000700038

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

Power fix:
SS=Screw (M5)

Mounting fix:
FIX= \varnothing 5,5

(dimensions in mm)

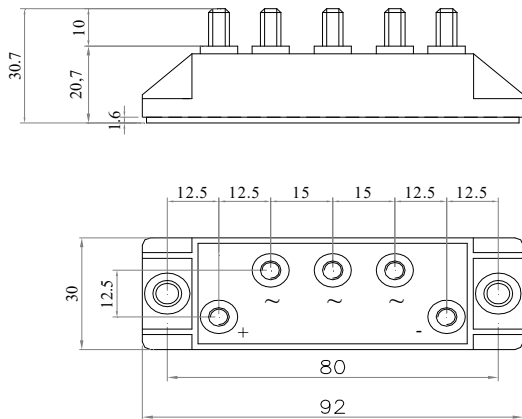


Fig.7

MTS70.04-MM5x10-FIX5-HP-P80-TB
Code:970000700005
MTS70.06-MM5x10-FIX5-HP-P80-TB
Code:970000700013
MTS70.08-MM5x10-FIX5-HP-P80-TB
Code:970000700021
MTS70.12-MM5x10-FIX5-HP-P80-TB
Code:970000700029
MTS70.16-MM5x10-FIX5-HP-P80-TB
Code:970000700037

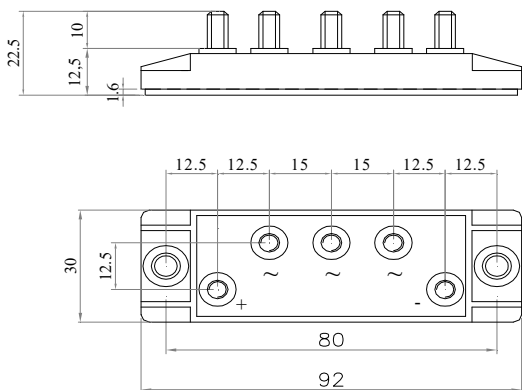


Fig.8

MTS70.04-MM5x10-FIX5-LP-P80-TB
Code:970000700004
MTS70.06-MM5x10-FIX5-LP-P80-TB
Code:970000700012
MTS70.08-MM5x10-FIX5-LP-P80-TB
Code:970000700020
MTS70.12-MM5x10-FIX5-LP-P80-TB
Code:970000700028
MTS70.16-MM5x10-FIX5-LP-P80-TB
Code:970000700036

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

Power fix:
MM=Bolt (M5)

Mounting fix:
FIX= Ø5,5