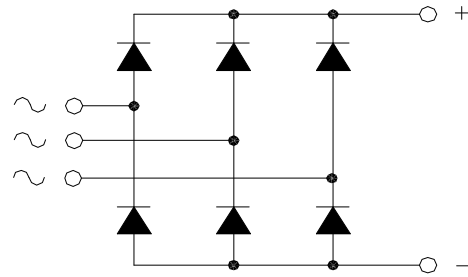


MTS70

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

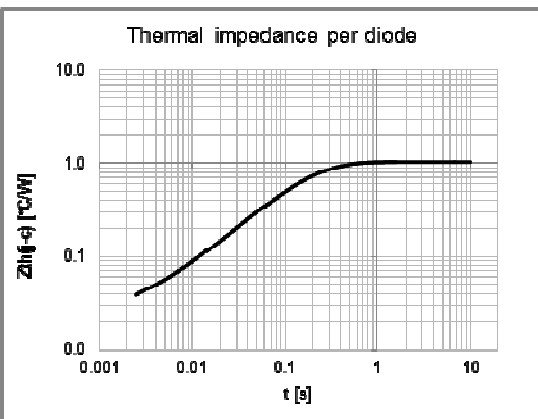
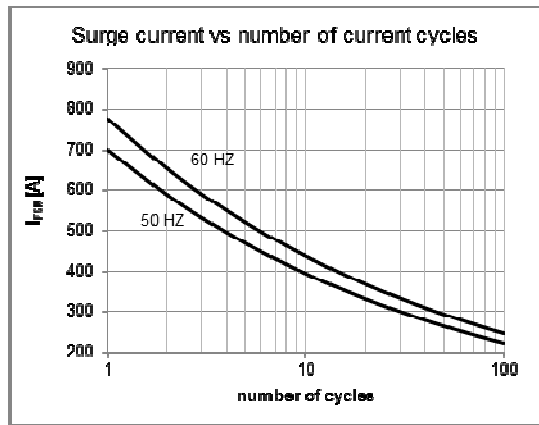
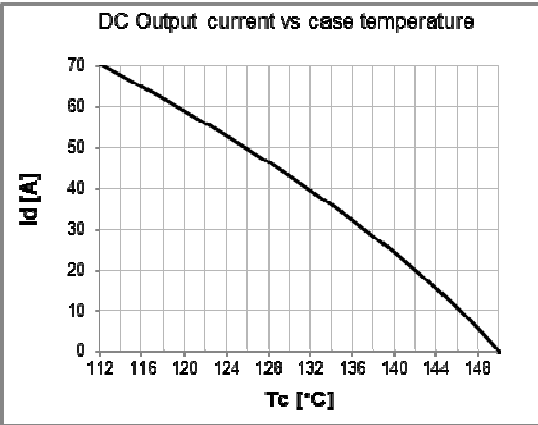
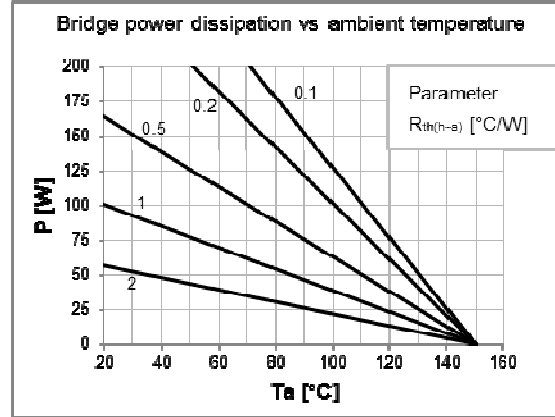
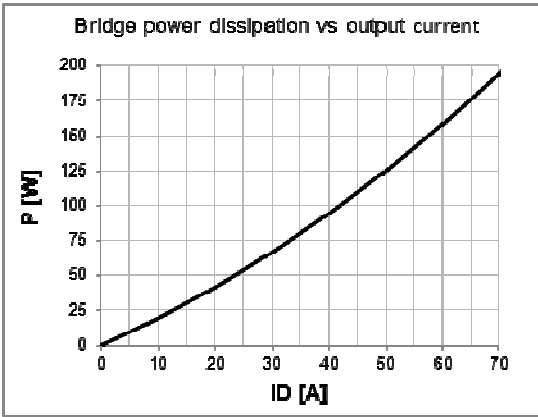
Low forward voltage diodes for high surge capability
Low thermal impedance packaging
Electrically insulated case

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)

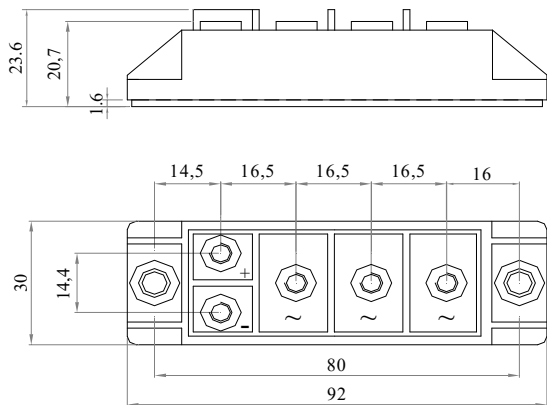


Fig.1

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

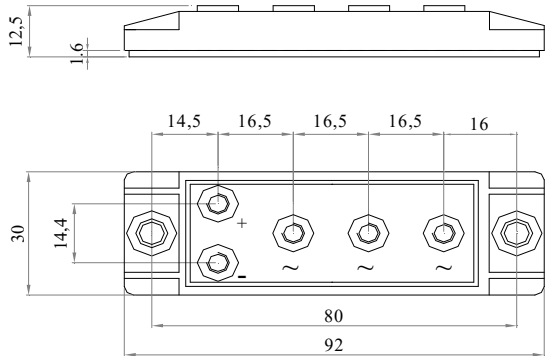


Fig.2

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)

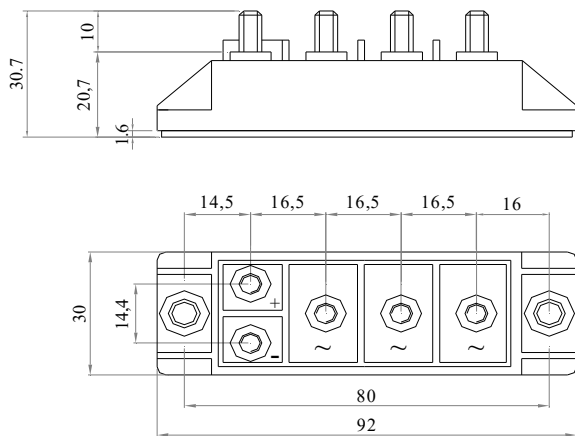


Fig.3

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

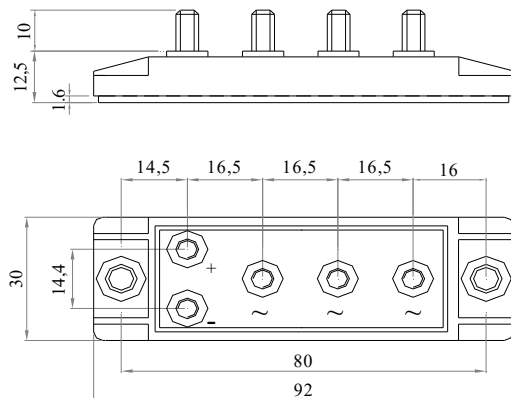


Fig.4

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)

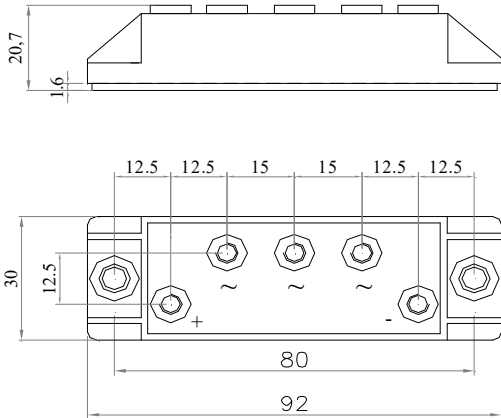


Fig.5 MTS70.04-SS5-FIX5-HP-P80-TB
Code:970000700007
MTS70.06-SS5-FIX5-HP-P80-TB
Code:970000700015
MTS70.08-SS5-FIX5-HP-P80-TB
Code:970000700023
MTS70.12-SS5-FIX5-HP-P80-TB
Code:970000700031
MTS70.16-SS5-FIX5-HP-P80-TB
Code:970000700039

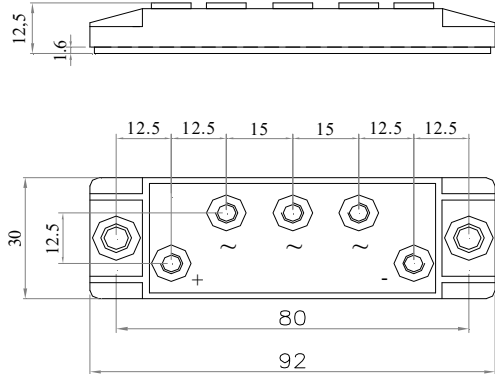


Fig.6 MTS70.04-SS5-FIX5-LP-P80-TB
Code:970000700006
MTS70.06-SS5-FIX5-LP-P80-TB
Code:970000700014
MTS70.08-SS5-FIX5-LP-P80-TB
Code:970000700022
MTS70.12-SS5-FIX5-LP-P80-TB
Code:970000700030
MTS70.16-SS5-FIX5-LP-P80-TB
Code:970000700038

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)

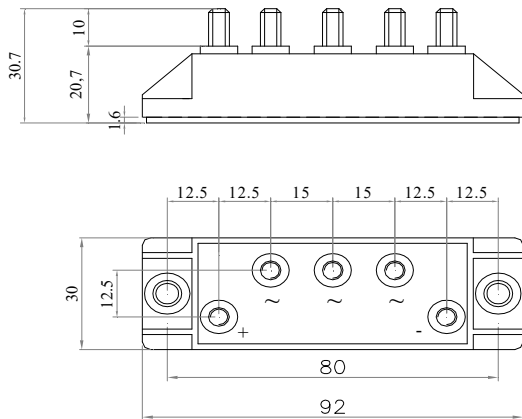


Fig.7

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

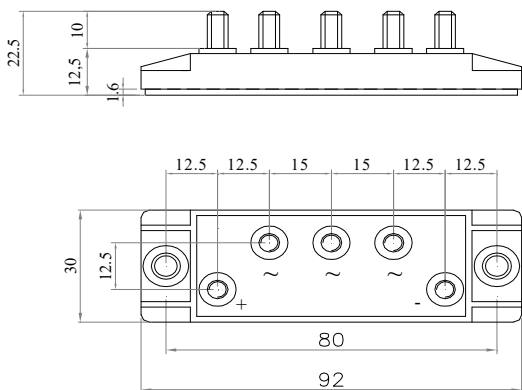


Fig.8

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