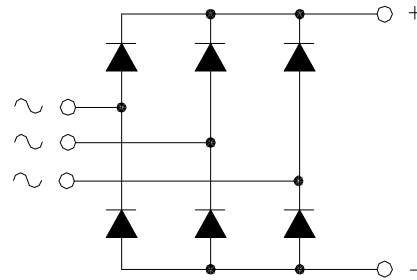


## MTS105

### POWER RECTIFIER BRIDGE

Output Current **105 A**



$V_{RRM}$	$V_{RSM}$	P/N
400	500	MTS105.04
600	700	MTS105.06
800	900	MTS105.08
1200	1300	MTS105.12
1600	1700	MTS105.16

#### Features

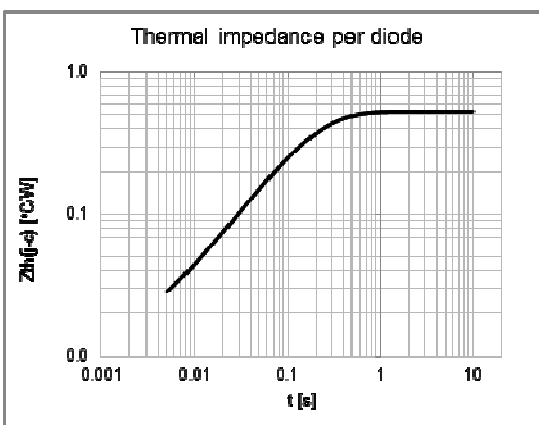
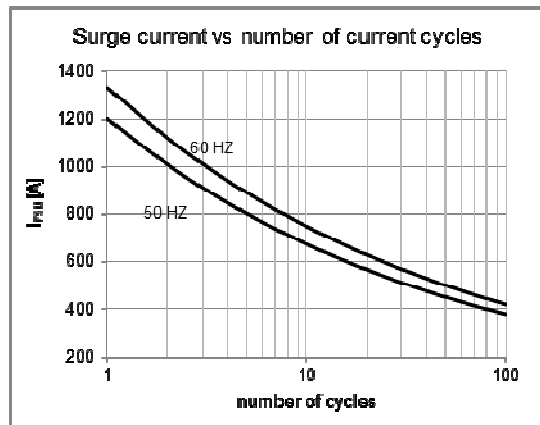
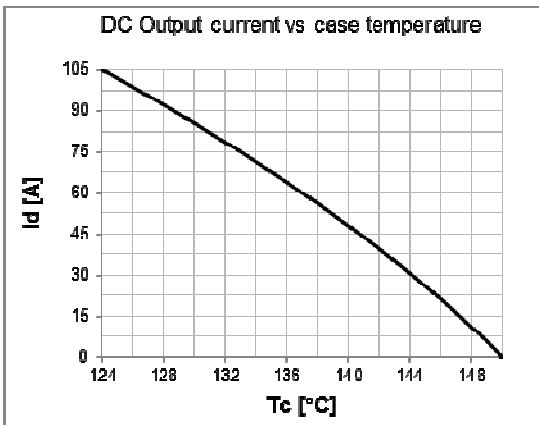
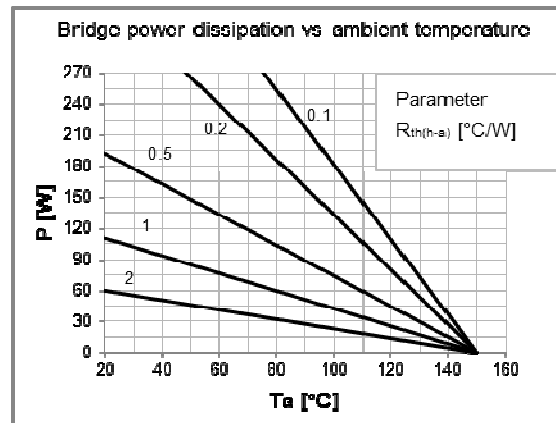
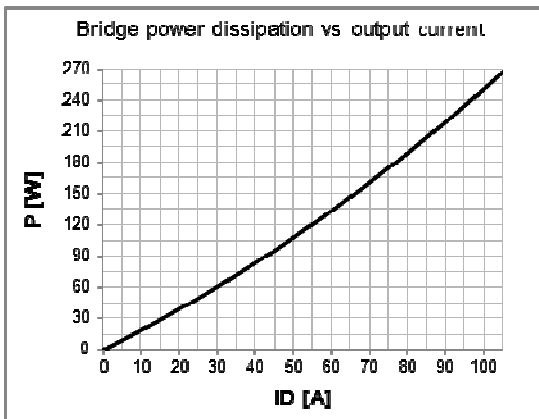
Low forward voltage diodes for high surge capability  
Low thermal impedance packaging  
Electrically insulated case

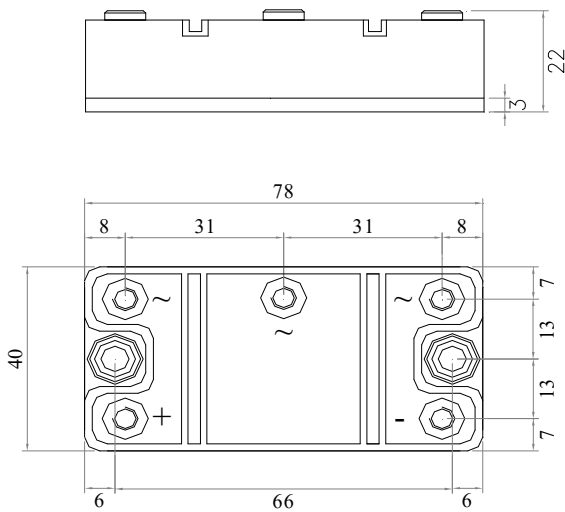
#### Applications

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

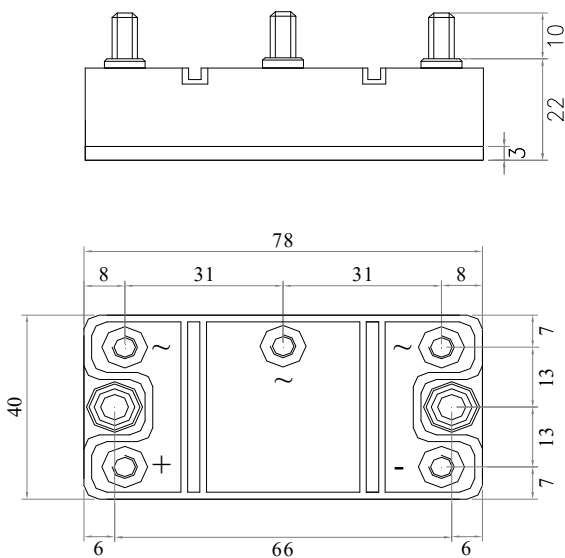
Diodes characteristics		Conditions	$T_j$ [°C]	Value
$I_{RRM}$	Max repetitive peak reverse current	$V = V_{RRM}$	150	4 mA
$V_{F(TO)}$	Threshold voltage		150	0,9 V
$r_F$	Forward slope resistance		150	3,5 mΩ
$V_{FM}$	Peak forward voltage, max	$I_F = 100A$	25	1,2 V
$I_{FSM}$	Surge forward current	Half sine wave, 10 ms	150	1200 A
$I^2t$	Max $I^2t$ for fusing		150	7200 A <sup>2</sup> s
$T_{jmax}$	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		0,52 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		0,58 °C/W

Module characteristics		Conditions	Value
$I_D$	DC output current	$T_c = 124$ °C	105 A
$I_D$	DC output current	$T_a = 40$ °C ; freely suspended	8 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	0,087 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,097 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased	0,079 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Freely suspended or mounted on an insulator	8,5 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Mounted on a painted metal sheet 250x250x1 mm	3,0 °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




**Fig.1**

MTS105.04-SS5-FIX5-HP-P66-TB  
 Code:970001050001  
 MTS105.06-SS5-FIX5-HP-P66-TB  
 Code:970001050003  
 MTS105.08-SS5-FIX5-HP-P66-TB  
 Code:970001050005  
 MTS105.12-SS5-FIX5-HP-P66-TB  
 Code:970001050007  
 MTS105.16-SS5-FIX5-HP-P66-TB  
 Code:970001050009


**Fig.2**

MTS105.04-MM5x10-FIX5-HP-P66-TB  
 Code:970001050000  
 MTS105.06-MM5x10-FIX5-HP-P66-TB  
 Code:970001050002  
 MTS105.08-MM5x10-FIX5-HP-P66-TB  
 Code:970001050004  
 MTS105.12-MM5x10-FIX5-HP-P66-TB  
 Code:970001050006  
 MTS105.16-MM5x10-FIX5-HP-P66-TB  
 Code:970001050008

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

**Power fix:**

SS=Screw (M5)  
 MM=Bolt (M5)

**Mounting fix:**

FIX=  $\varnothing$ 5,5