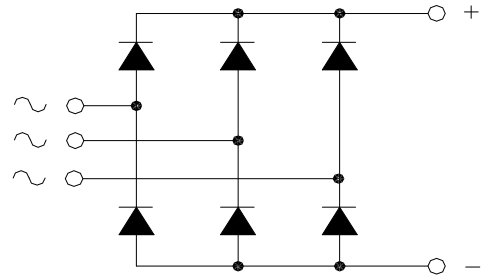


## MTS50

### 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

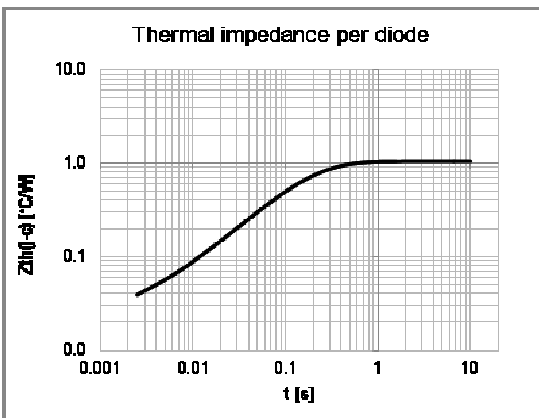
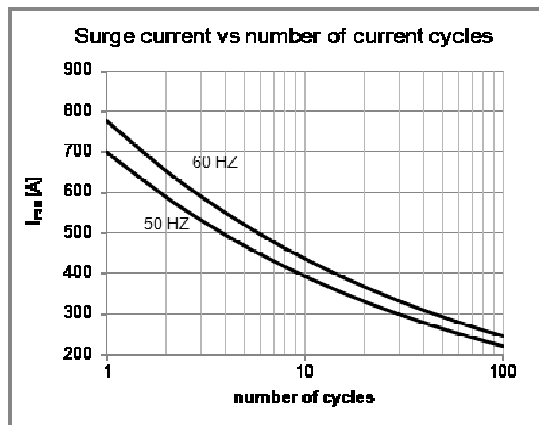
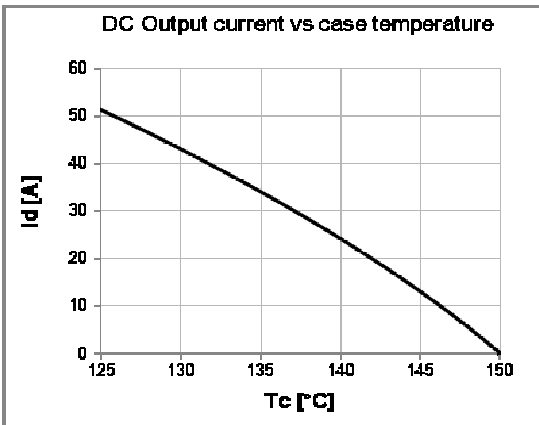
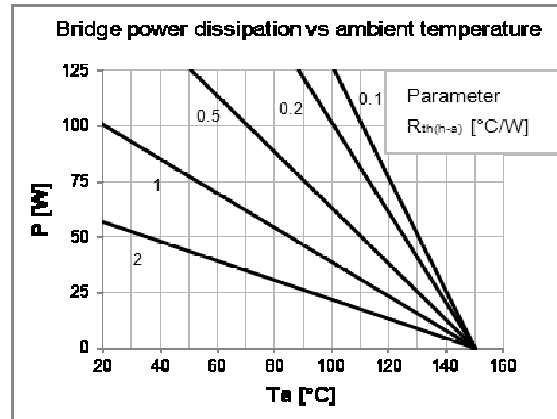
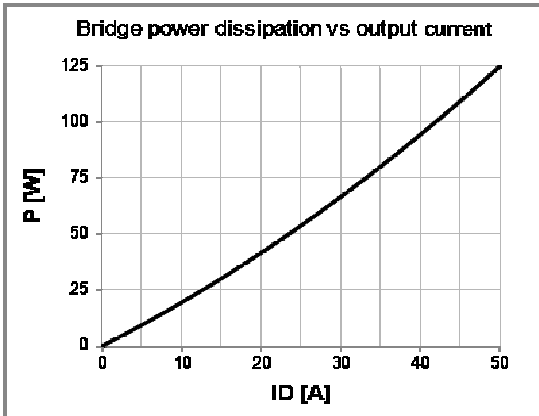
- Low forward voltage diodes for high surge capability
- Low thermal impedance packaging
- Electrically insulated case

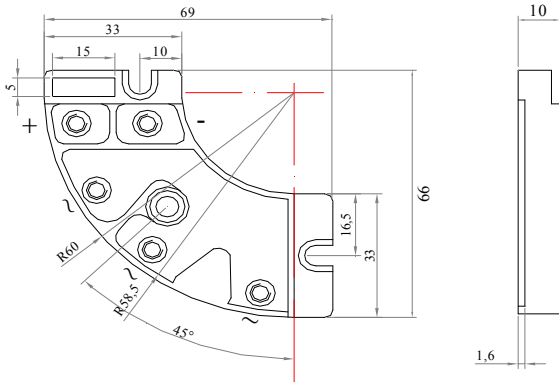
#### Applications

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

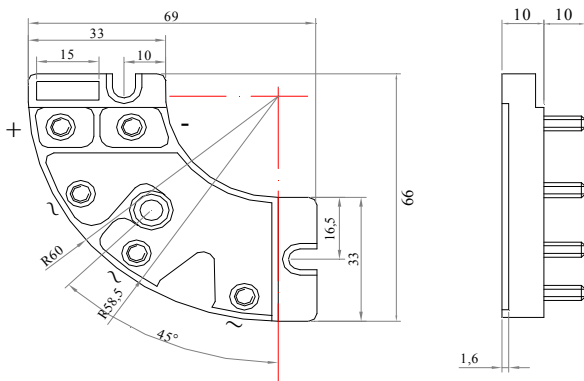
Diodes characteristics		Conditions	$T_j$ [°C]	Value
$I_{RRM}$	Max repetitive peak reverse current	$V = V_{RRM}$	150	4 mA
$V_{F(TO)}$	Threshold voltage		150	0,9 V
$r_F$	Forward slope resistance		150	7,0 mΩ
$V_{FM}$	Peak forward voltage, max	$I_F = 100A$	25	1,7 V
$I_{FSM}$	Surge forward current	Half sine 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 %		3,0 N·m
			26 lb·inch
$M_2$	Terminal connection torque, ± 15 %		3,0 N·m
			26 lb·inch




**Fig.1**

MTS50.04-SS4-FIX5-LP-TG  
 Code:970000500080  
 MTS50.06-SS4-FIX5-LP-TG  
 Code:970000500081  
 MTS50.08-SS4-FIX5-LP-TG  
 Code:970000500082  
 MTS50.12-SS4-FIX5-LP-TG  
 Code:970000500083  
 MTS50.16-SS4-FIX5-LP-TG  
 Code:970000500084


**Fig.2**

MTS50.04-MM4x10-FIX5-LP-TG  
 Code:970000500085  
 MTS50.06-MM4x10-FIX5-LP-TG  
 Code:970000500086  
 MTS50.08-MM4x10-FIX5-LP-TG  
 Code:970000500087  
 MTS50.12-MM4x10-FIX5-LP-TG  
 Code:970000500088  
 MTS50.16-MM4x10-FIX5-LP-TG  
 Code:970000500089

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

**Power fix:**  
 SS=Screw (M4)  
 MM=Bolt (M4)

**Mounting fix:**  
 FIX= Ø5,5