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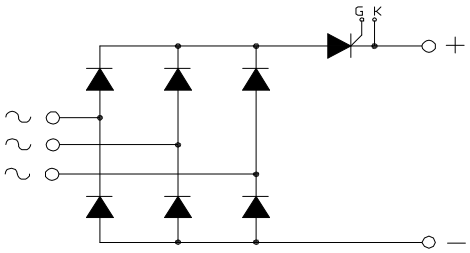
MTS.SCR150



POWER RECTIFIER BRIDGE+THYRISTOR

Output Current **150 A**

V_{RRM}	V_{RSM}	P/N
1600	1700	MTS.SCR150.16

Features

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

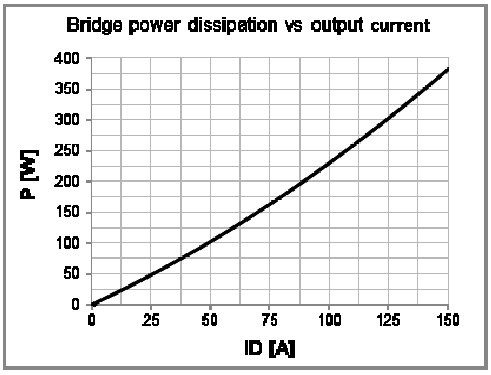
Applications

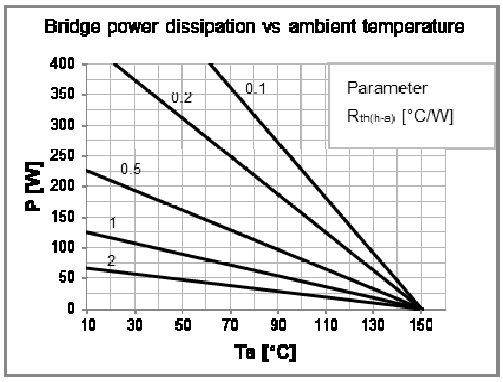
Input rectifier for variable frequency drives
Battery charger rectifiers
Three phase rectifier for power supplies
Rectifiers for DC motor fields supplies

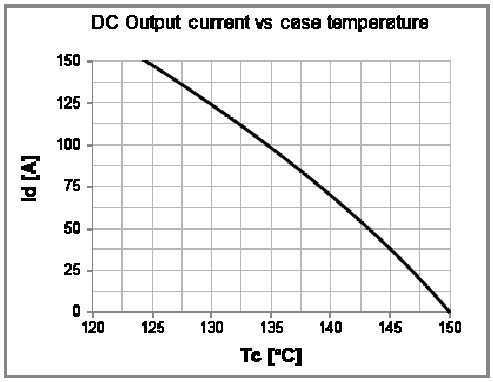
Diodes characteristics		Conditions	Tj [°C]	Value
I_{RRM}	Max repetitive peak reverse current	V = V_{RRM}	150	5 mA
$V_{F(TO)}$	Threshold voltage		150	0,9 V
r_F	Forward slope resistance		150	2,5 mΩ
V_{FM}	Peak forward voltage, max	I_F = 150A	25	1,3 V
I_{FSM}	Surge forward current	Half sine wave, 10 ms	150	1800 A
I^2t	Max I^2t for fusing		150	16200 A^2s
T_{jmax}	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		0,36 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		0,40 °C/W

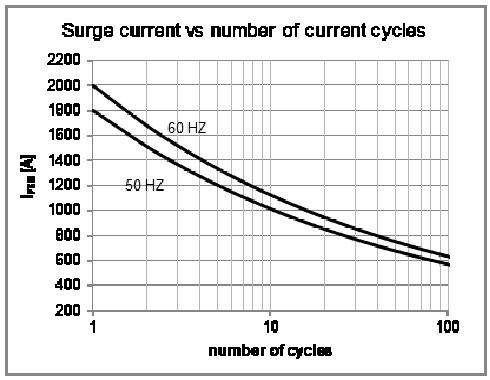
Thyristor characteristics		Conditions	Value
I_{TAV}	Average on-state current	T_J = 125 °C	160 A
I_{TSM}	Max peak one-cycle non-repetitive surge current	10ms sine pulse, rated V_{RRM} applied, TJ=TJ max	3200 A
I^2t	I^2t for fusing	10ms sine pulse, rated V_{RRM} applied, TJ=TJ max	5.10 kA^2s
V_{TM}	Peak on-state voltage max	I_T=500A	1,650 V
T_J	Operating junction temperature		-40 to+125 °C
I_{DRRM} I_{RRM}	Max reverse and direct leakage current	Rated V_{RRM},V_{DRM} applied	0,100 mA
P_{GM}	Max peak gate power		12 W
I_{GM}	Max peak gate current		3 A
dv/dt	Max critical rate of rise of off-state voltage	Tj=+125oC,linear to 0.67 V_{DRM}	1000 V/µs
V_{GT}	Max gate voltage for triggering,V_k,resistive load		0,85 V
I_{GT}	Max gate current for triggering		65 mA
I_H	Holding current	V_{AK}=6V,resistive load,I=1A	200 mA
I_L	Latching current	V_{AK}=6V,resistive load	300 mA

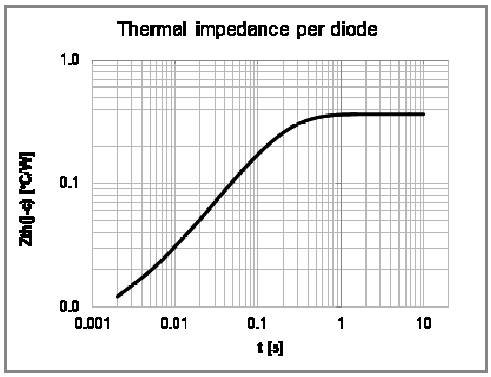
Module characteristics		Conditions	Value
I	DC output current	Tc = 124 °C	150 A
I	DC output current	Ta = 40 °C ; freely suspended	12 A
V_{INS}	RMS Insulating voltage	50 / 60 Hz t = 1 s (i < 1 mA)	3600 V
V_{INS}	RMS Insulating voltage	50 / 60 Hz t = 60 s (i < 1 mA)	3000 V
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation	0,060 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,067 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased	0,054 °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











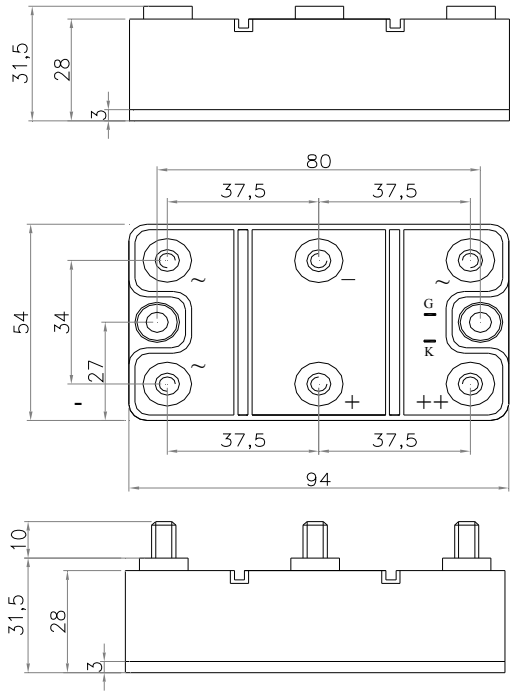


Fig.1 MTS.SCR150.16-SS6-FIX5-HP-P80-TB
Code:970001500017

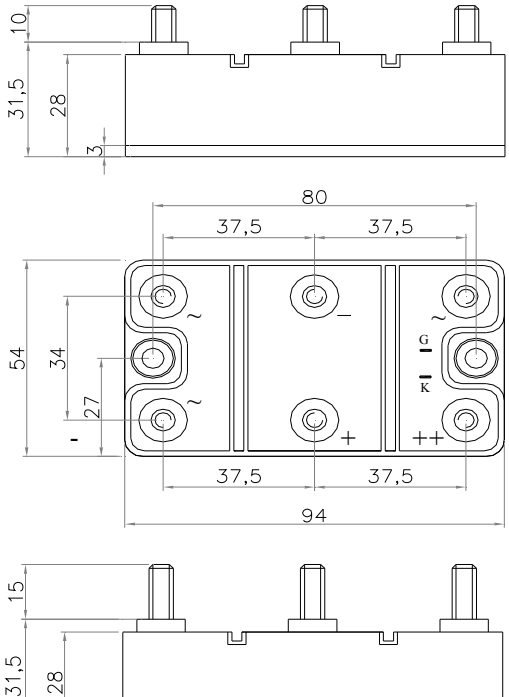


Fig.2 MTS.SCR150.16-MM6x10-FIX5-HP-P80-TB
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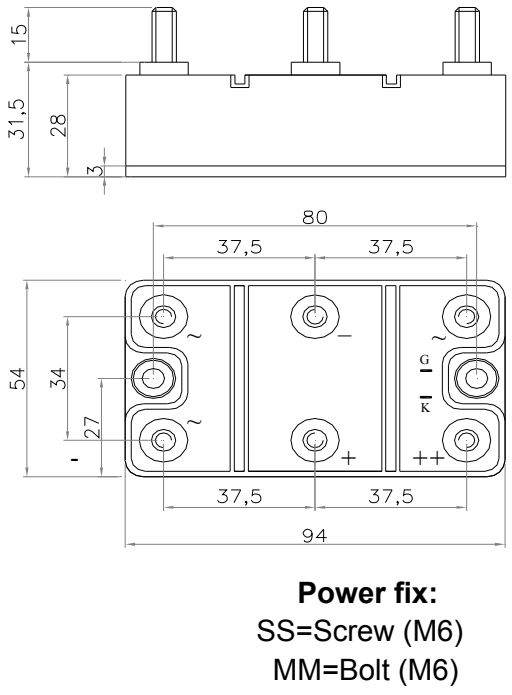

Fig.3 MTS.SCR150.16-MM6x15-FIX5-HP-P80-TB
Code:970001500016

Power fix:
SS=Screw (M6)
MM=Bolt (M6)

Mounting fix:
FIX= Ø5,5

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