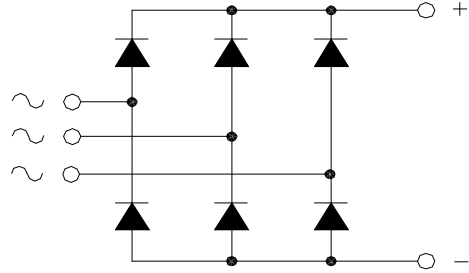


## MTS80-TH

### POWER RECTIFIER BRIDGE

Output Current **80 A**



$V_{RRM}$	$V_{RSM}$	P/N
1600	1700	MTS80.16-TH

#### Features

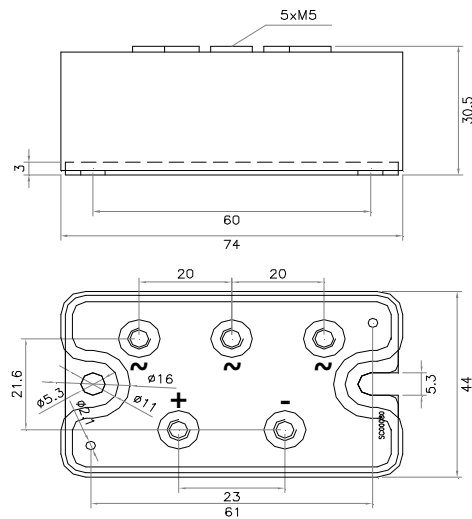
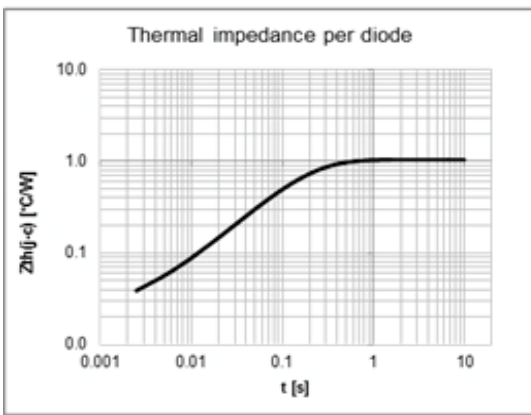
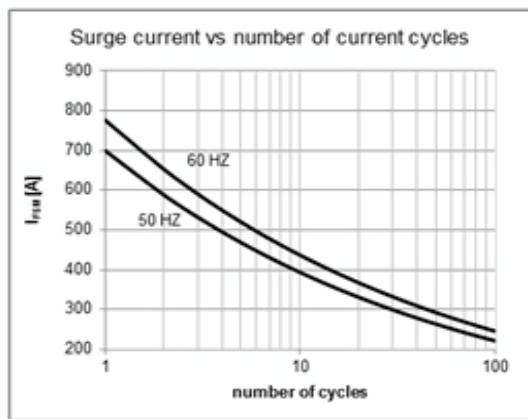
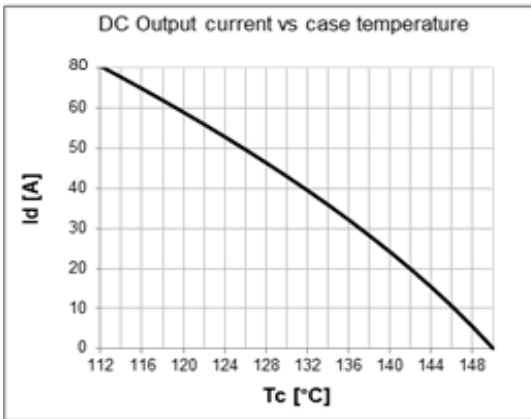
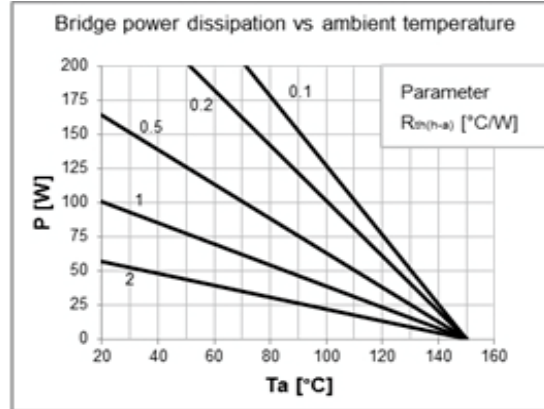
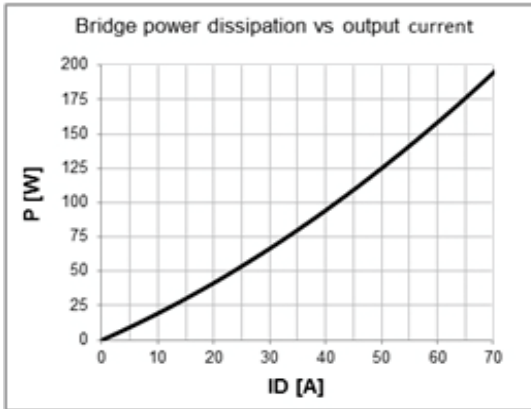
Low forward voltage diodes for high surge capability  
 Low thermal impedance packaging  
 Electrically insulated case

#### 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	5,0 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	900 A
$I^2t$	Max $I^2t$ for fusing		150	4800 A <sup>2</sup> s
$T_{jmax}$	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		0,68 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		0,71 °C/W

Module characteristics		Conditions	Value
$I_D$	DC output current	$T_c = 112$ °C	80 A
$I_D$	DC output current	$T_a = 40$ °C ; freely suspended	7 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	0,110 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,122 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased	0,092 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Freely suspended or mounted on an insulator	8,8 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Mounted on a painted metal sheet 250x250x1 mm	3,3 °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



**Notes :**

To reduce the thermal resistance we recommend to apply a layer of 100..200µm of thermal compound to the heat sink or to the module base.

The flatness tolerance of IMS is 80µm.

**MTS80.16SS5FIX5XS**

*Scomes srl reserves the right to change any specification without notice*

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issue:jun-2017