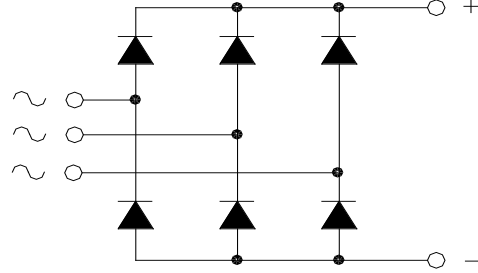


## MTS70-TH

### POWER RECTIFIER BRIDGE

Output Current **70 A**



$V_{RRM}$	$V_{RSM}$	P/N
1600	1700	MTS70.16-TH

#### Features

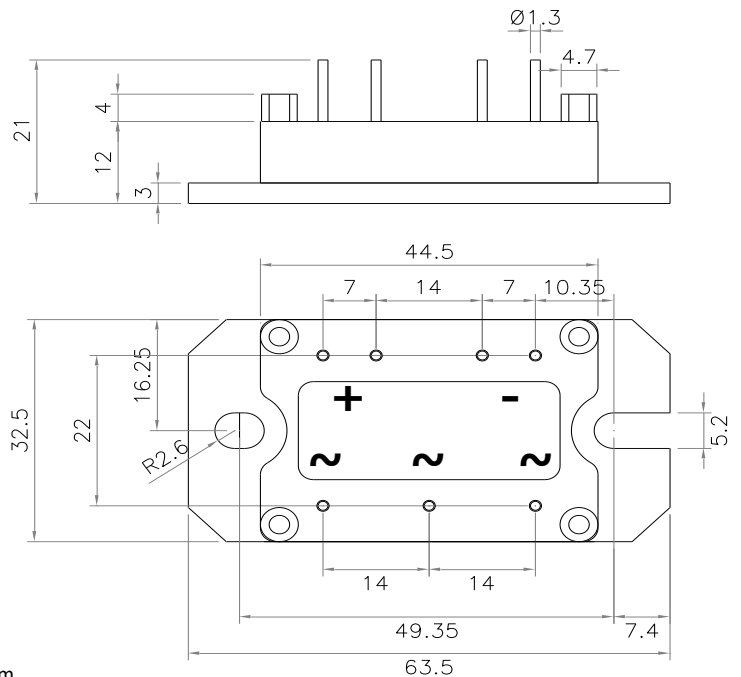
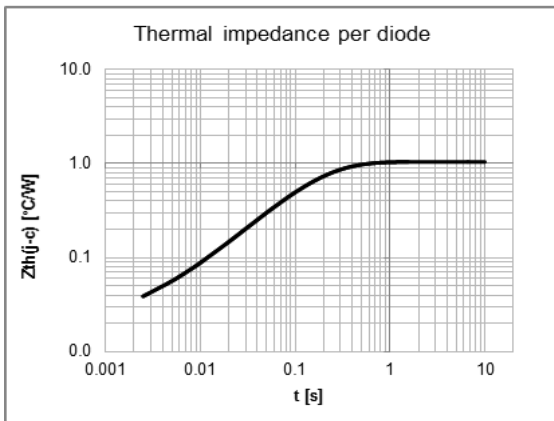
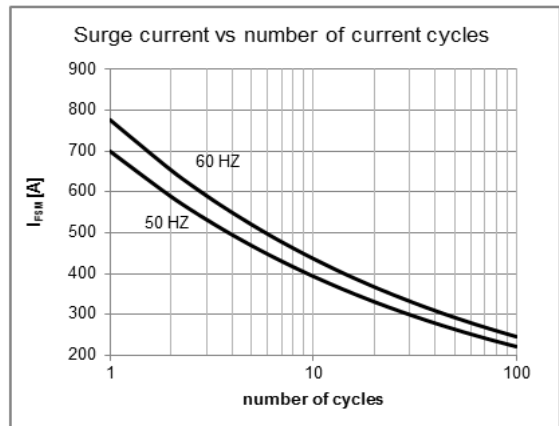
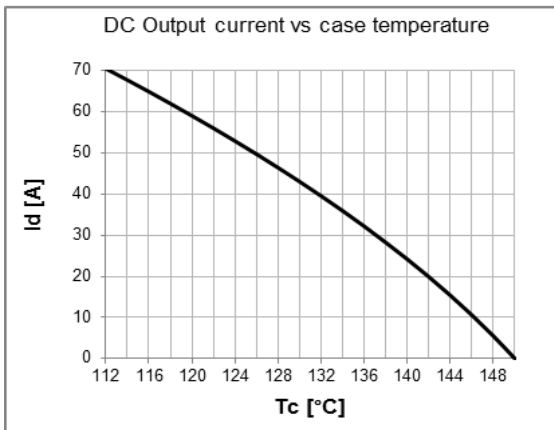
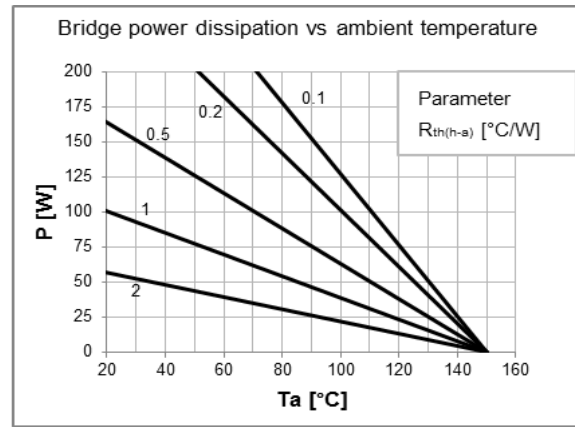
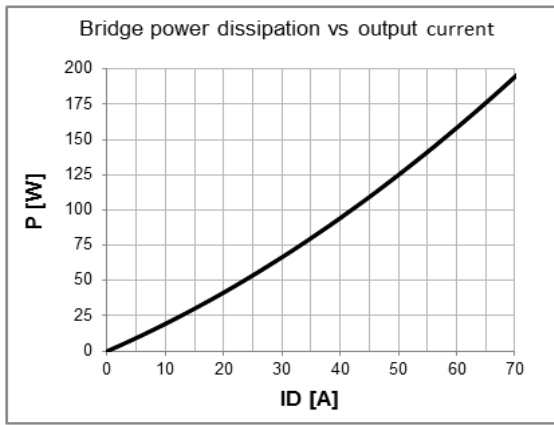
Low forward voltage diodes for high surge capability  
 Low thermal impedance packaging  
 Electrically insulated case

#### 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	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		1,02 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		1,14 °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



**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.

**MTS70.16-LL-FIX5-LP-P49,35-TH**  
Code:970000700040

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

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issue:mar-2017

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