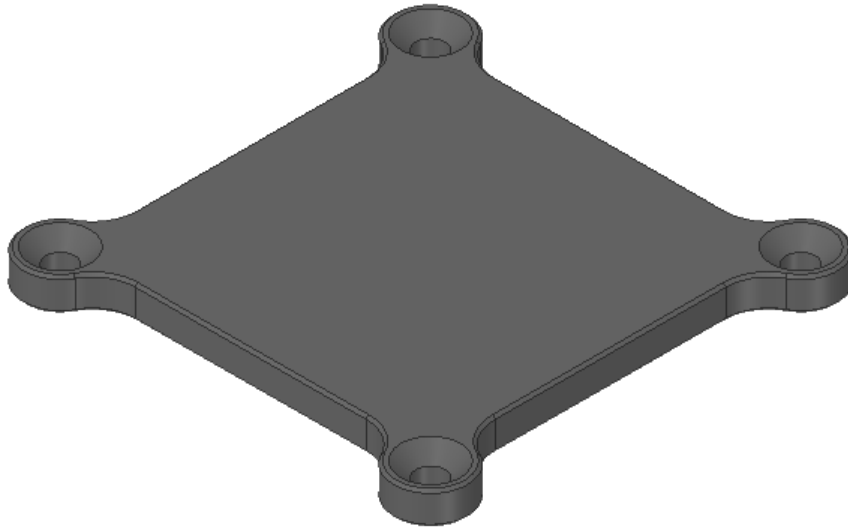


OSM Heatspreader
MHS.OSM.1
Datasheet

Preliminary



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2 Change History

Version #	Changed Section	Author	Date	Change description
001		TM	18.01.2024	Initial Version
002	5.1, 6.1	TM	28.03.2024	Mechanical dimensions changed

3 About this document

This document describes the individual components of article “MHS.OSM.1” on a technical and thermal level for the OSM (Open Solder Module).



4 Technical Specifications

4.1 Heatspreader

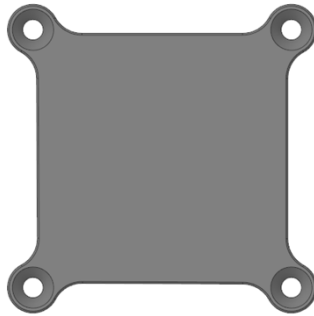


Figure 1: Heatspreader TOP

Heatspreader		Unit	Test Method	Remarks
Material	EN AW-6061	-		
Coating	Black anodized	-		
Thermal conductivity	170-200	W/mK		@ 20°C
Weight	TBD	Grams		Heatspreader only
Thermal resistance	TBD	W/mK		

4.2 Thermal Interface Material (TIM) Heatspreader



Figure 2: Thermal Interface Pad Heatspreader

Thermal Interface Material (TIM)		Unit	Test Method	Remarks
Color	Grey	-	Visual	
Thermal conductivity	8	W/mK	ASTM D5470	
Dielectric Breakdown Voltage	6,0	kV/mm	ASTM D 149	
Volume Resistivity	2,9 x10 ¹¹	Ohm-cm	ASTM D 257	
Density	2,0	g / cm ³	ASTM D 792	
Tensile strength	782	PSI	ASTM D 412	
Continuous Use Temperature	-40 – 220	°C	EN 344	
Hardness Bulk Rubber	20	Shore C	ASTM D 2240	
Flame Rating	UL 94V-0	-	UL 94	

5 Mechanical Dimensions

5.1 Mechanical Dimensions of Heatspreader

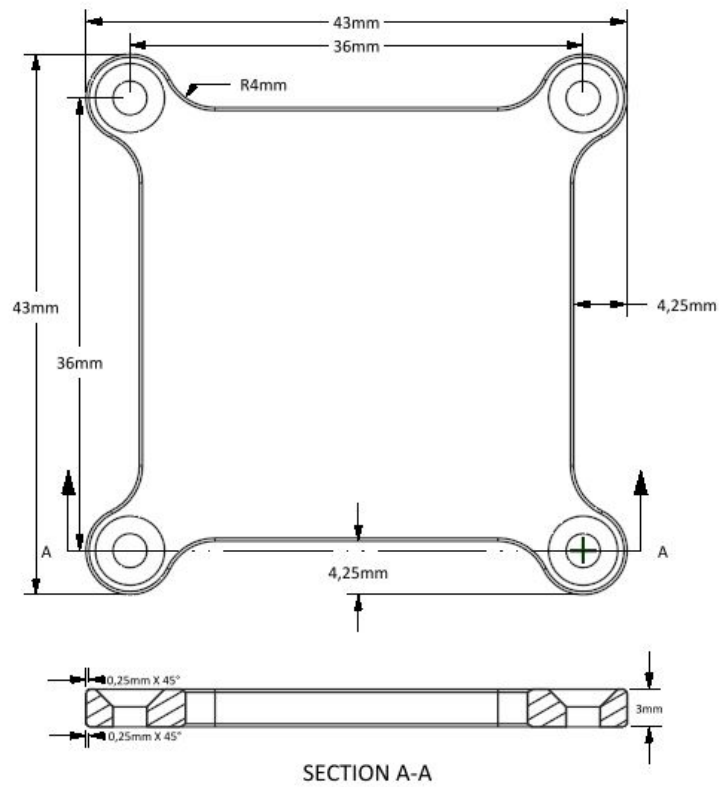


Figure 3: Mechanical dimensions of heatspreader

5.2 Mechanical Dimensions of TIM (Heatspreader)

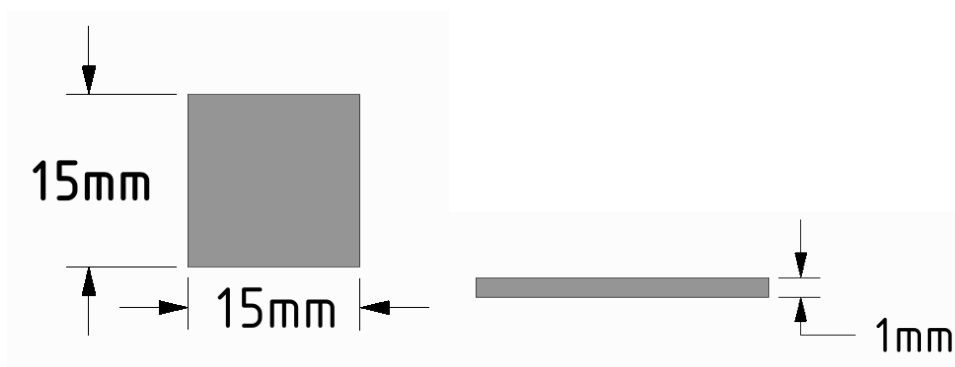


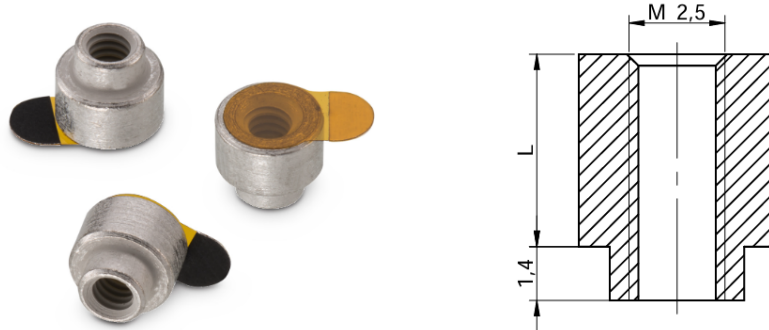
Figure 4: Mechanical dimensions TIM heatspreader

6 Spacer

For mounting we recommend SMT Steel Spacer components, order number **B.MSCHR.34**.

This part is in F&S stock and can be ordered via F&S web shop.

The stack height of the spacer is 3.0mm. If a different stack height is needed, another spacer should be chosen. In this case also the thermal interface material must be adapted.



6.1 Recommended Land Pattern

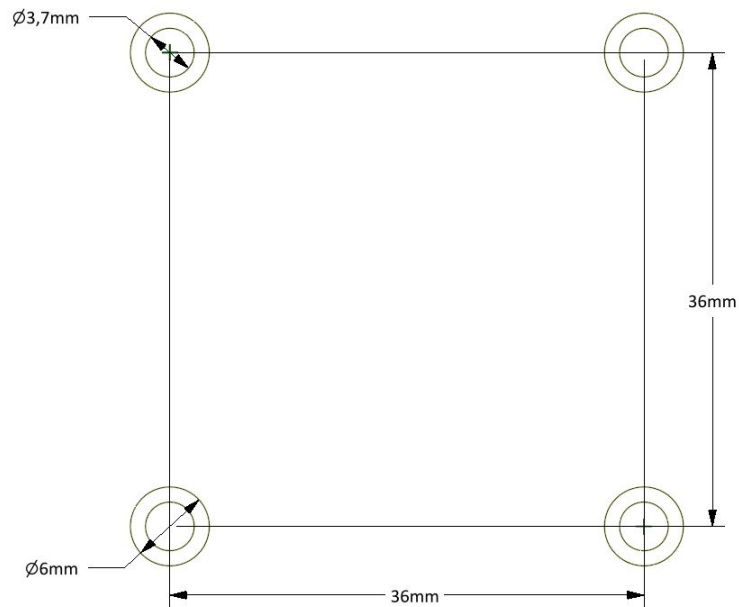


Figure 5: Recommended Land Pattern

6.2 Stencil Suggestion

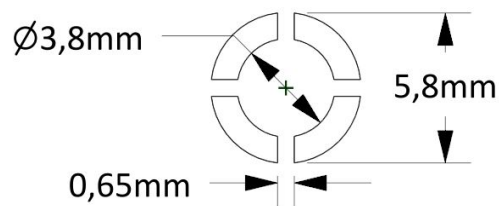


Figure 6: Stencil Suggestion

7 Scope of delivery

MHS.OSM.1:

Article	Quantity
Heatspreader	1
TIM 15x15x1mm	1
M2.5x6mm countersunk screws DIN 965	4

8 Appemdix

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