

Thermal Management

ASSMANN

WSW components

SMD- & Copper heatsinks

The portfolio of **Fingershaped - & small heatsinks** will be expanded by additional stamped heat sinks and the product group „**SMD- & Copper heatsinks**”.

Suitable applications for this kind of products are the cooling of SMD-components on PC-boards with low heat dissipation.

The advantage: Both, the SMD component and the tin plated copper heat sink are soldered by reflow-soldering-process on the PCB within one production step. Due to this kind of assembly process a manual fixation of the semiconductor on or with the heatsink by screw, clip or gluing is not necessary anymore.

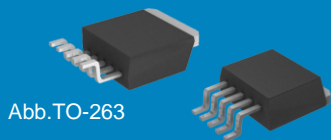
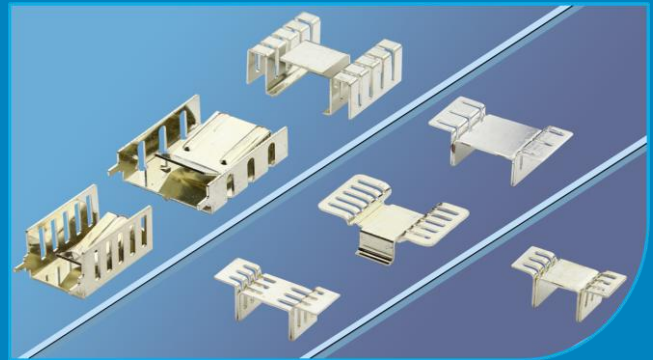


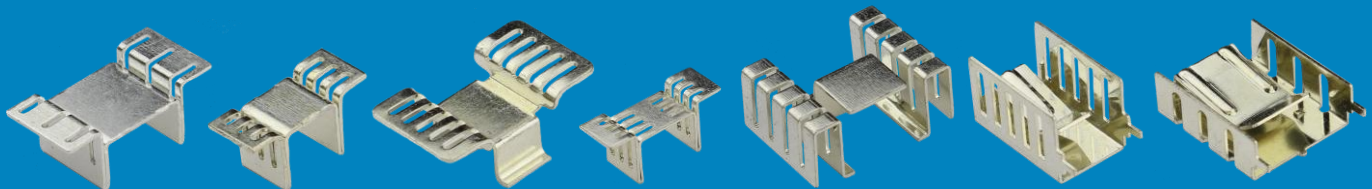
Abb.TO-263

Electronic components in D-PAK sizes like MO184, SO10, TO252, TO263 do not get into direct contact with the heat sinks. This kind of cooling is called indirect cooling system. In this case the heat will be transferred from the SMD semiconductor component through a copper drain pad to the heat sink for dissipation.

The operating range of thermal resistance for those SMD heat sinks is between 24K/W and 11K/W. The reasons for this excellent R_{th} - values are first of all the geometry and secondly the best conductive Copper material itself, so called C1100.

Neither Aluminium (99,5 %) nor Graphite achieved a thermal conductivity of 389 W/(mK). Therefore, a Copper heat sink has an obvious advantage in thermal conductivity compared with an aluminium heat sink.

This series is only used as tin plated version with a material thickness of 0,6mm. All SMD parts are available in bulk or in tape & reel packing for manual, semi- or full automatic assembly processes.



Cumstomer tailored solution, according to your application, states, under the premise of special punching and bending tools, no problem to be realized.

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