

## Thermal Management

**ASSMANN**  
**WSW components**  
A company of **BCS** GROUP



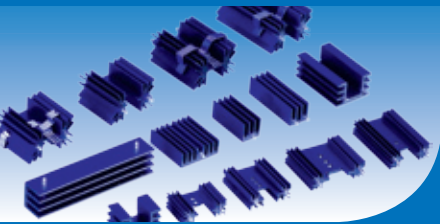
### Finger- and U-shaped heatsinks

Heat sinks for package TO-220/ TO-3/ TO-3x/ SOT-32  
**Thermal resistance:** 7 K/W – 80 K/W  
**Mounting options:** THT, screw mounted  
**Mounting direction:** 180°, 90°  
**Surface:** AL degreased, anodized, tinned  
**Material:** AL1050, AL1100, AL99.5  
**Packaging:** Polybags, carton, tray and T&R  
**Special:** Threads, holes, cut outs



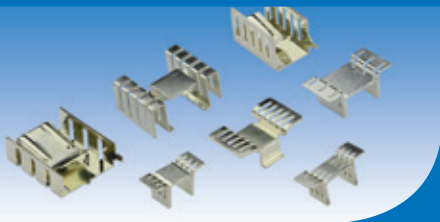
### Attachable heatsinks

Heat sink for package TO-220/ TO-218  
**Thermal resistance:** 13 K/W – 63 K/W  
**Mounting options:** THT, spring force  
**Mounting direction:** 180°, 90°  
**Surface:** AL degreased, anodized, tinned  
**Material:** AL 1050, AL1100, AL99.5, CU1100  
**Packaging:** Polybags, carton, tray and T&R  
**Special:** Threads, holes, cut outs



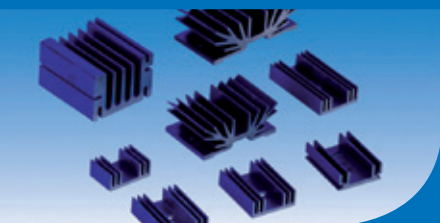
### Extruded heatsinks with solder pins

Heat sinks for package TO-220 / TO-3x / SOT-32  
**Thermal resistance:** 3.5 K/W – 38 K/W  
**Mounting options:** THT, screw mounted  
**Mounting direction:** 180°, 90°  
**Surface:** AL degreased, anodized, tinned solder pins  
**Material:** AL6063  
**Packaging:** Carton, tray  
**Special:** Retaining clamps, pressed in solder pins



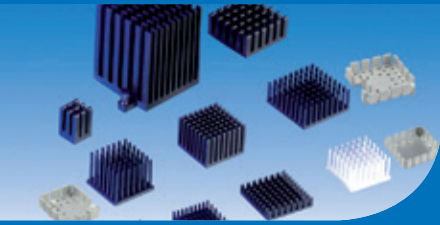
### SMD and copper heatsinks

Heat sinks for D-PAK-Series and TO-220 packages  
**Thermal resistance:** 11 K/W – 24 K/W  
**Mounting options:** SMD & spring force  
**Mounting direction:** 180°, 90°  
**Surface:** Tinned  
**Material:** CU1100  
**Packaging:** Polybags, carton, tray and T&R  
**Special:** Complete tinned surface finish



### Extruded heatsinks in standard length

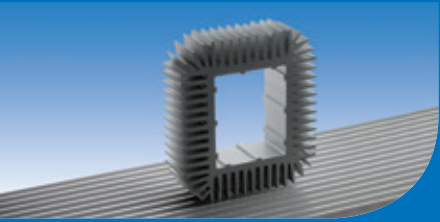
Heatsinks for DIL-IC devices/ TO-220/ TOP-3/ TO-5  
**Thermal resistance:** 1.5 K/W – 40 K/W  
**Mounting options:** Screw mounted  
**Mounting direction:** 180°, 90°  
**Surface:** AL degreased, anodized  
**Material:** AL6063, AL6060  
**Packaging:** Carton  
**Special:** Profiles with M3 threads (extruded), standard hole patterns



## CPU heatsinks

Heatsinks for processor/ BGA/ PGA

<b>Thermal resistance:</b>	3.7 K/W – 32 K/W
<b>Mounting options:</b>	THT, Push Pins, thermal adhesive pads, glue
<b>Mounting direction:</b>	180°
<b>Surface:</b>	AL degreased, anodized
<b>Material:</b>	AL6063, AL1050, AL5052
<b>Packaging:</b>	Carton, tray, T&R
<b>Special:</b>	Cross Cut-, Pin Fin- or Stamped heat sink version/ with or without mounted thermal pads



## Profile extruded heatsinks

Standard profile heatsinks with customer tailored mechanical treatment

<b>Thermal resistance:</b>	Pending on material and design of profile
<b>Mounting options:</b>	Screw mounted, clip
<b>Mounting direction:</b>	180°, 90°
<b>Surface:</b>	AL degreased, anodized
<b>Material:</b>	AL6063, AL6060
<b>Packaging:</b>	Carton, tray
<b>Special:</b>	Milling, drilling, turning, polishing and anodizing according to customer requirement



## Retaining springs

Customer specific and product specific fixing solutions

<b>Mounting options:</b>	Manual mounting process
<b>Surface:</b>	Degreased, zincd
<b>Material:</b>	Spring steel SUS301, SK35M
<b>Packaging:</b>	Polybag
<b>Special:</b>	ASSMANN WSW clip system, high contact press force, cost saving assembly process



## Mounting accessories

Single-component-adhesive, thermal compound, thermal conductive ceramic pads, insulating washers, stand-offs, insulating mica wafers

<b>Type of adhesive:</b>	Single-component-adhesive in 30g plastic pen with screw top or 3g tube with screw top
<b>Thermal compound:</b>	Silicon thermal or non-silicon-thermal compound based on 15g up to 25kg size packaging, temperature range -40 – +150°C
<b>Thermal conductive pads:</b>	Material: glass fiber reinforced ceramic silicon pads, material C20, temperature range -60°C – +200°C
<b>Insulating washers:</b>	Material: SR25, heat resistant up to 215°C
<b>Insulating mica wafers:</b>	Material: Polypropylene, heat resistant up to 110°C
<b>Packaging:</b>	Tubes, cans, buckets (adhesive & thermal compound)/ polybags (insulating washers & insulating mica wafers)/ tray (foils & pads)



## Distance rolls

Distance rolls and spacers

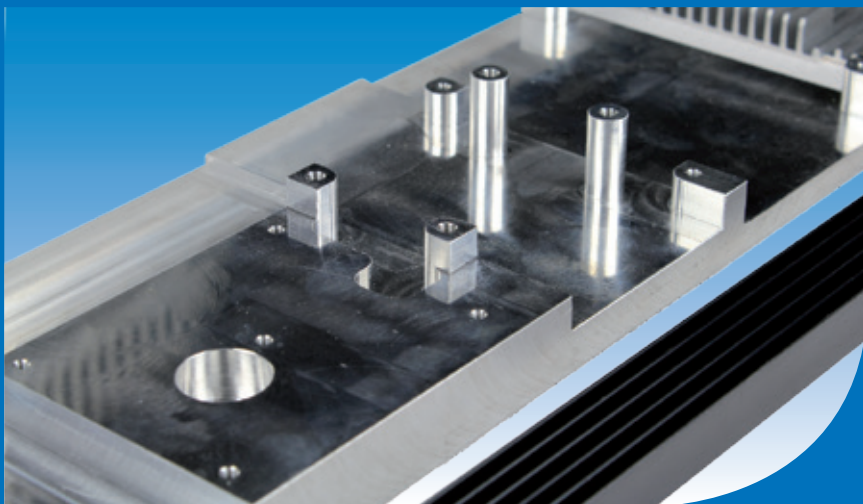
<b>Mounting options:</b>	Screw mounted
<b>Mounting direction:</b>	180°
<b>Surface:</b>	Zinc-plated (steel-version), nickel-plated (brass-version)
<b>Material:</b>	Brass, steel, polyamide
<b>Packaging:</b>	Polybag
<b>Special:</b>	Different lengths and width across flats (5/ 5.5/ 6/ 7/ 8/ 10), various inner threads (M2.5/ M3/ M4/ M5/ M6)



## Customer tailored heat sink solutions

Our customized process begins with an analysis of application needs, utilizing a thermal calculation, creating a product that meets your specific needs in fit form and function. The results of the analysis are used to create a sample production and are modified until specifications are met. Then the series production starts for a highly refined customized heat sink. ASSMANN WSW group provides short logistical lead times and cost competitiveness.

We manage the complexities of creating, developing and manufacturing your customized heat sinks. Our customers benefit from our vast range of existing profiles for their application. As added value, ASSMANN WSW components offers a customized treatment tailored to your needs of the final profile which include sawing of the heat sink and CNC machine treatment includes milling, drilling holes and threads, turning or polishing. To give the heat sink its final surface the ASSMANN WSW group offers the anodized for standard and décor. As a standard, AL6060 (European) and AL6063 (Asian) materials are used, however different alloys are available.



## Customer tailored heatsinks (based on customized extrusion tools)

<b>Thermal resistance:</b>	Pending on material and design of profile
<b>Mounting options:</b>	Screwing, THT
<b>Mounting direction:</b>	180°
<b>Surface:</b>	Anodized, tinned, untreated
<b>Material:</b>	AL6063, AL6060, AL1050, AL1052, AL5052
<b>Packaging:</b>	Polybag, tray, carton, T&R
<b>Special:</b>	Special decor surfaces available
<b>Manufacturing:</b>	Manufacturing of profile heat sinks in Europe and Asia
<b>Advantages:</b>	Large range of profile extrusion tools available, project management in Germany, competitive manufacturing, long term product experience



## Thermal Management

ASSMANN WSW group is the gold standard of thermal management with heat sinks. We have decades of experience in developing, creating and manufacturing heat sinks. Our customers can take advantage of a vast selection of existing customized heat sink profiles.

This increases your profitability by eliminating the need to invest in and maintain new extrusion tools. ASSMANN WSW group has a variety of standard heat sinks based on stamped or extruded base materials readily available, giving your company a wide selection of time

tested products. ASSMANN WSW group is fully invested in the development, creation, and manufacturing of new profiles for close to 50 years. ASSMANN WSW group offers a large spectrum of thermal management products.

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**always  
cool power!**

# ASSMANN

## WSW components

A company of **BCS** GROUP

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