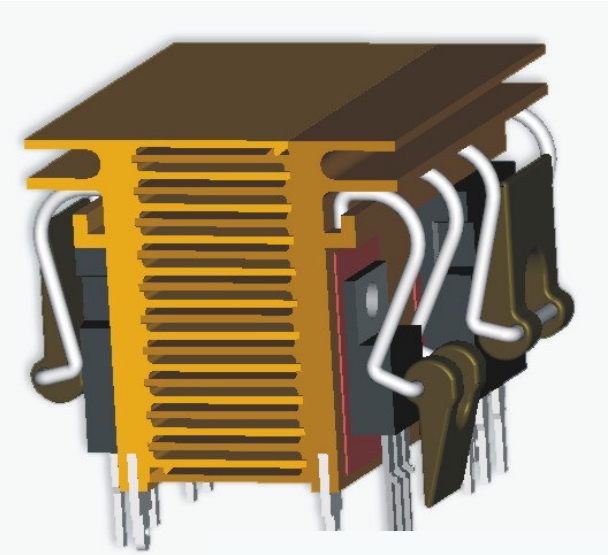
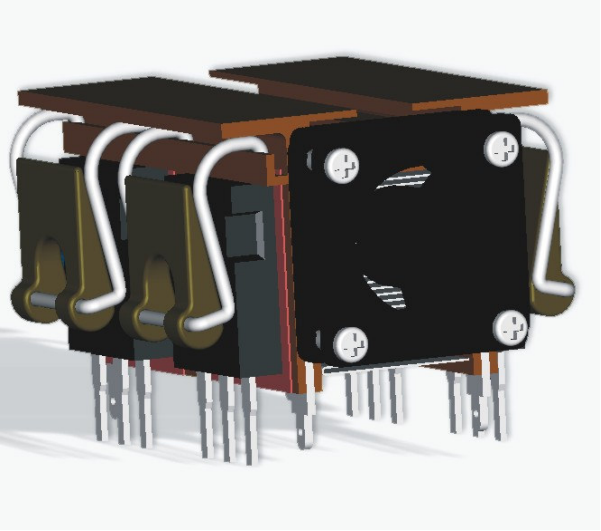
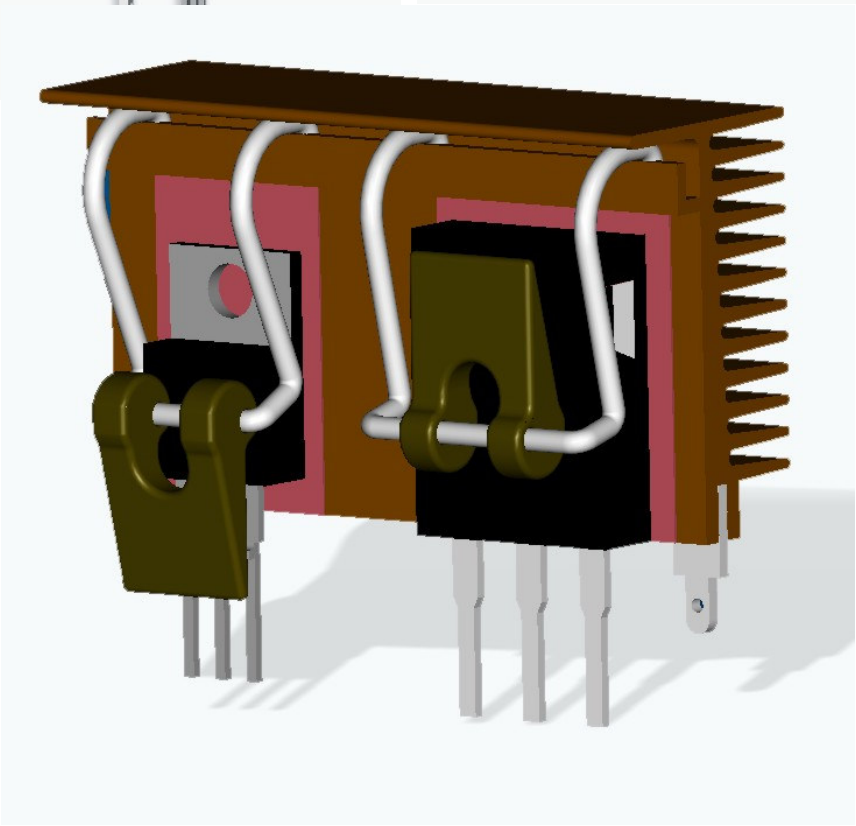
Camming Clip System ™ Heat Sink

Design Realization offers the patented, super easily assembly and disassembly heat sink which requires no fixtures, jigs and tools to assembly devices onto the heat sink. The new heat sink comprises an heat sink body with extruded or brazed convoluted fins and an integral cam spring clip which has an auto-align feature and camming mechanism. This heat sink provides easy assembly and all-in-one solution. It can be used for TO-220, TO-247, TO-264 and TO-218 series power devices with either natural or forced convention cooling.







Design Realization Inc. Proprietary Products, 197 Alhambra Way, Ft. Lauderdale, FL 33326
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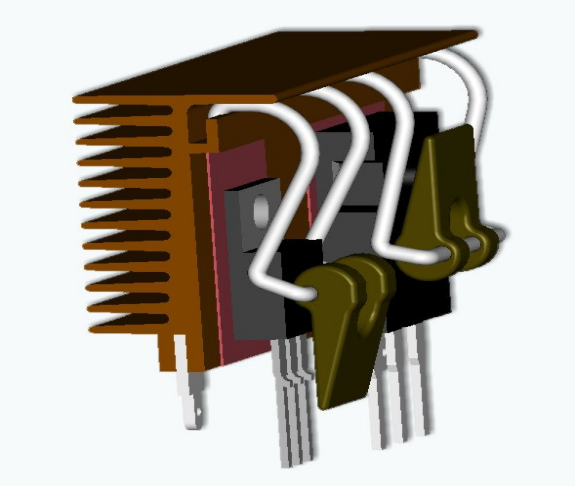
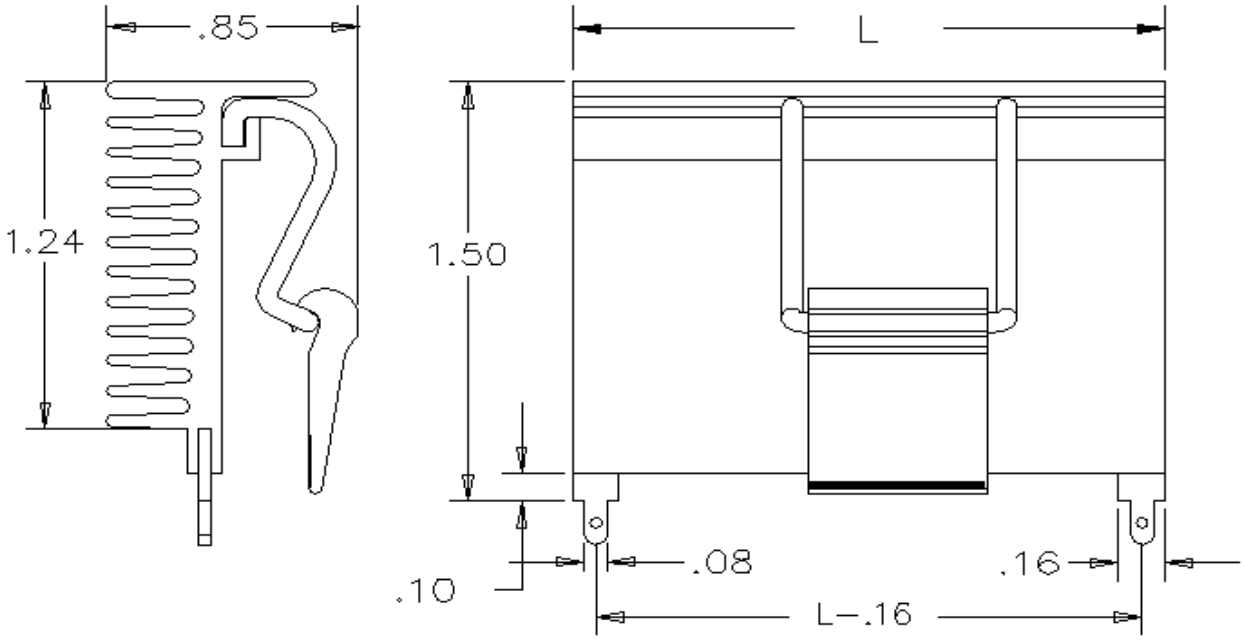
Products Applications and Specifications

Patent Pending

P/N: CM02 - EA – 2.0 –YC	Surface Area (extruded/bonded fin) $in^2/in(mm^2/mm)$	Weight lb/in(g/mm)	Clip force lb (kg)
	12 (305)/25(635)	.32 (5.7)	13 (5.9)
	Applications	Cooling	Mounting
	TO-247, TO-3P TO-220, TO-264 Etc.	Forced or free convective	Thought Hole

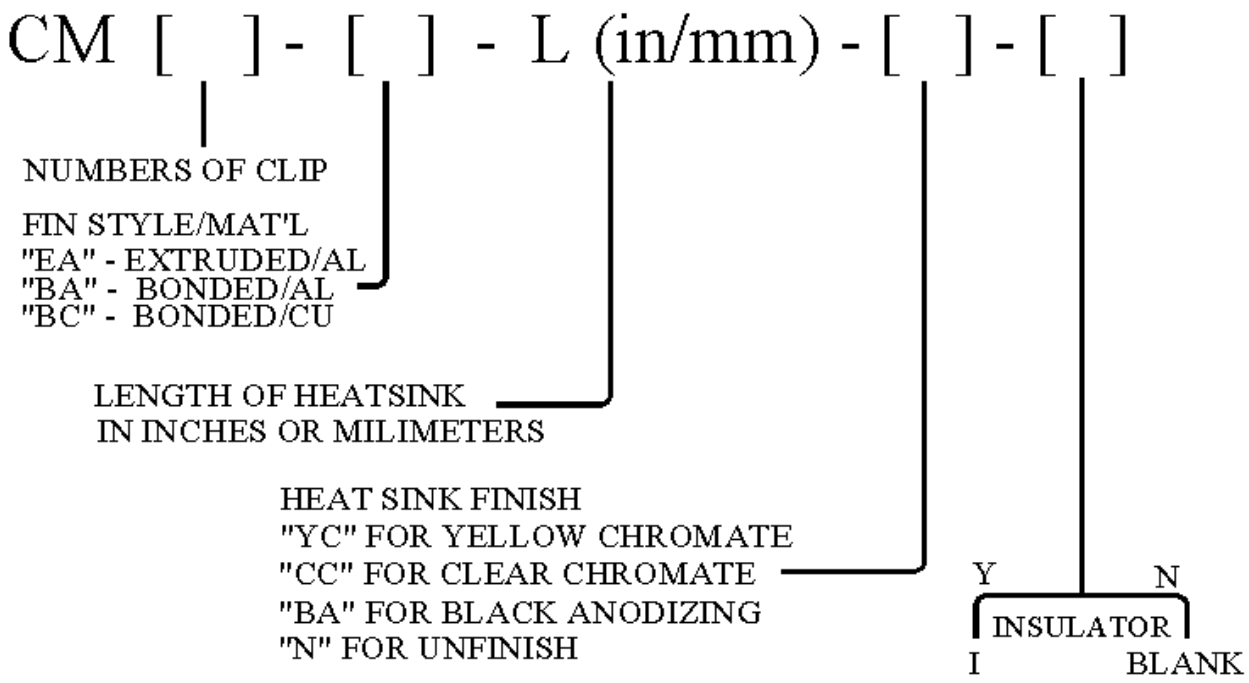
NOTE: Customers can specify their own length Heat Sink.

Mechanical Dimensions in. [mm]

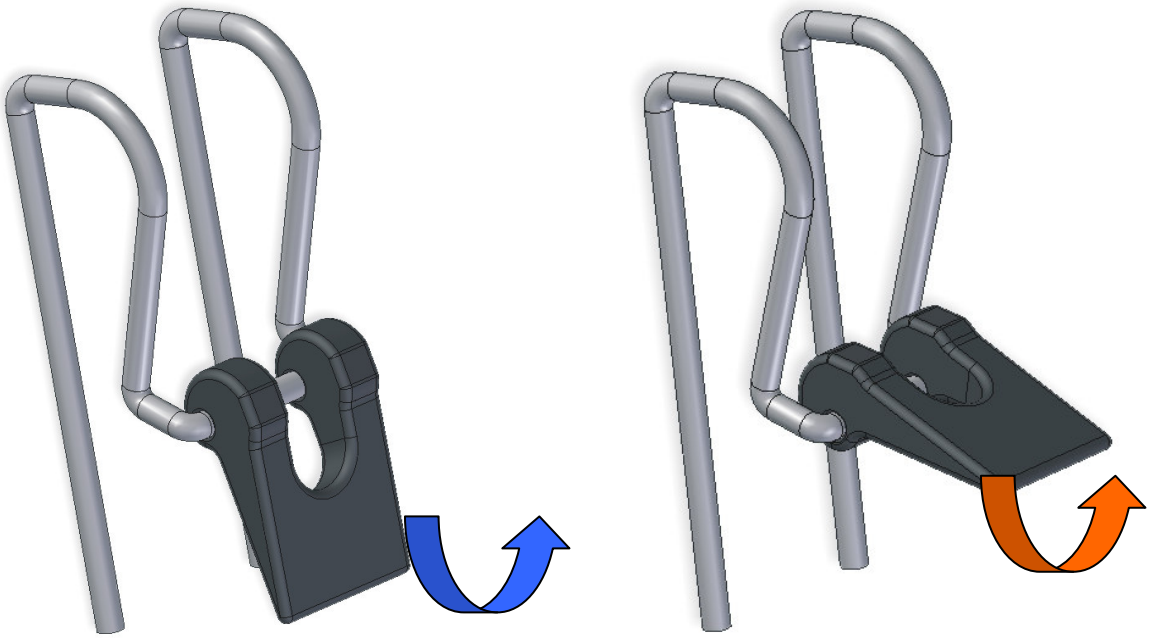


Patent Pending (Unit: inch)

Part Number Specifications



New Cam Clip Heat Sink is ease of assembly and disassembly.
No fixture and tool needed!



a b

c

Fig. 1. Cam-Clip, as easy as a.b.c.

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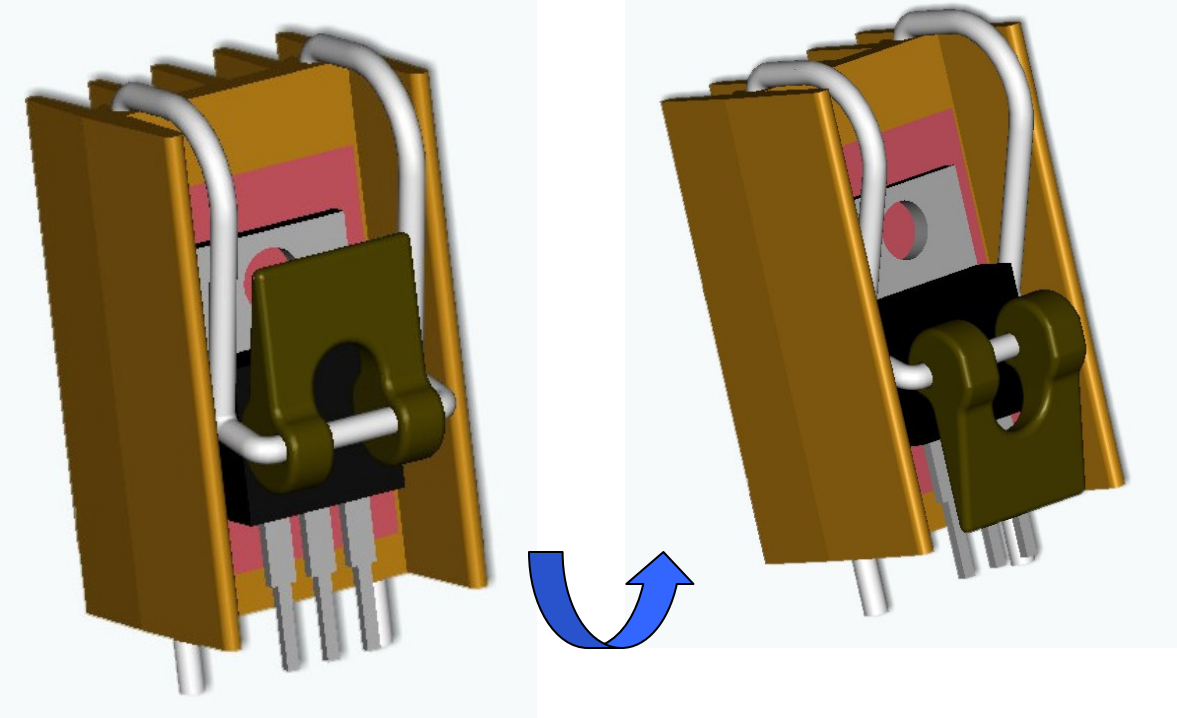


Fig. 2 Application one Clamp and Solder

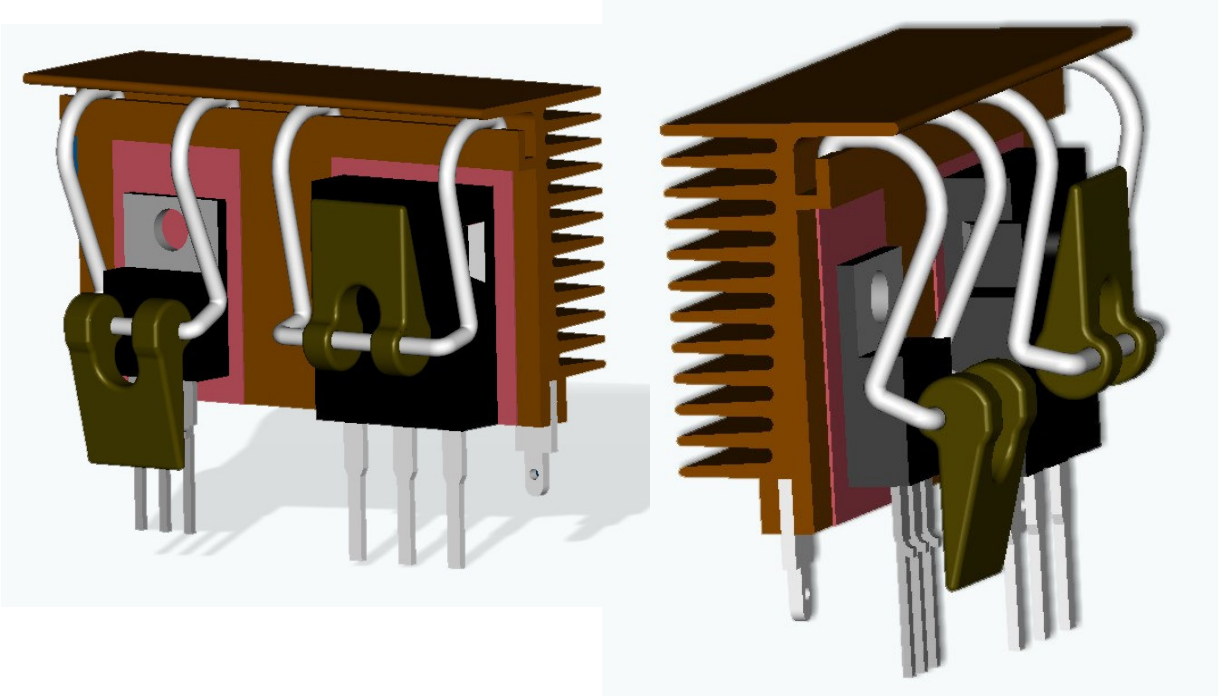


Fig. 3 Application of Slide-in and Clamp

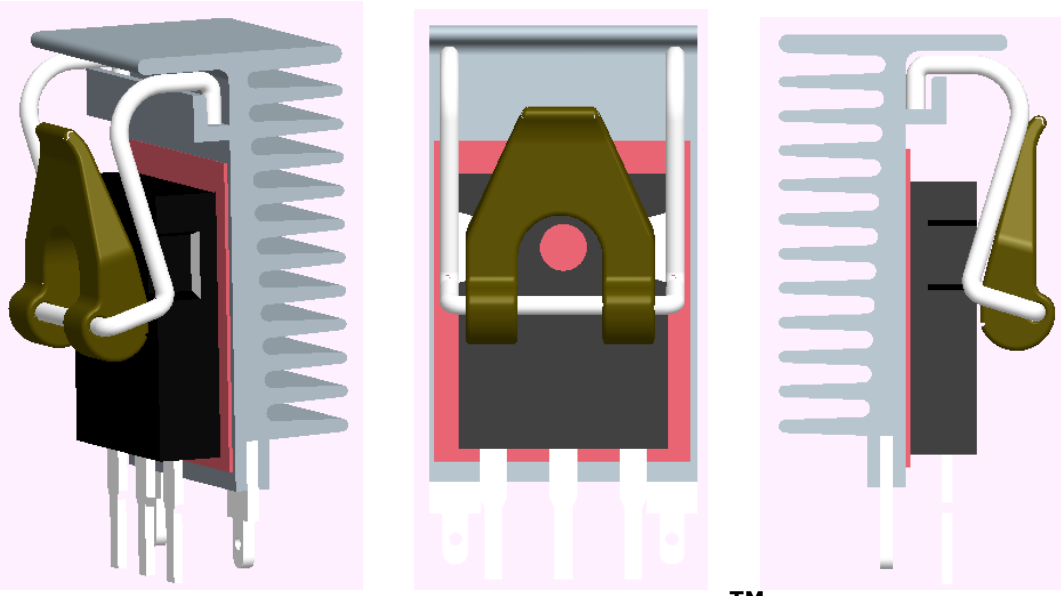


Fig. 4 Application of Camming Clip™ Heat Sink

This heat sink with a Camming Clip™ is very easy to assemble. There is no fixture and tool required to assemble the device onto the heat sink.

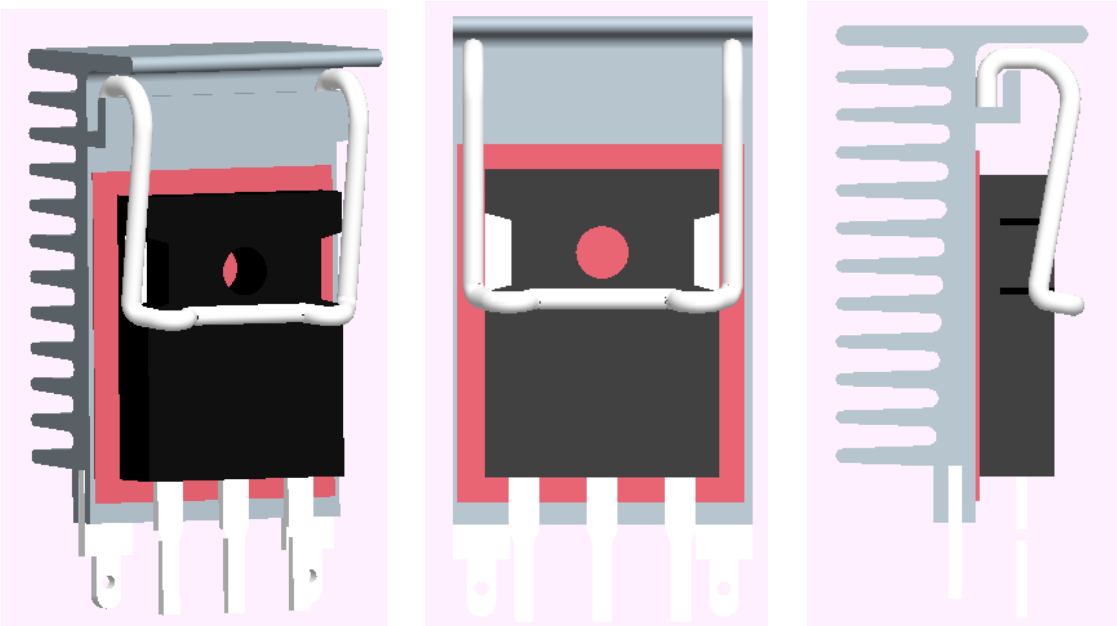
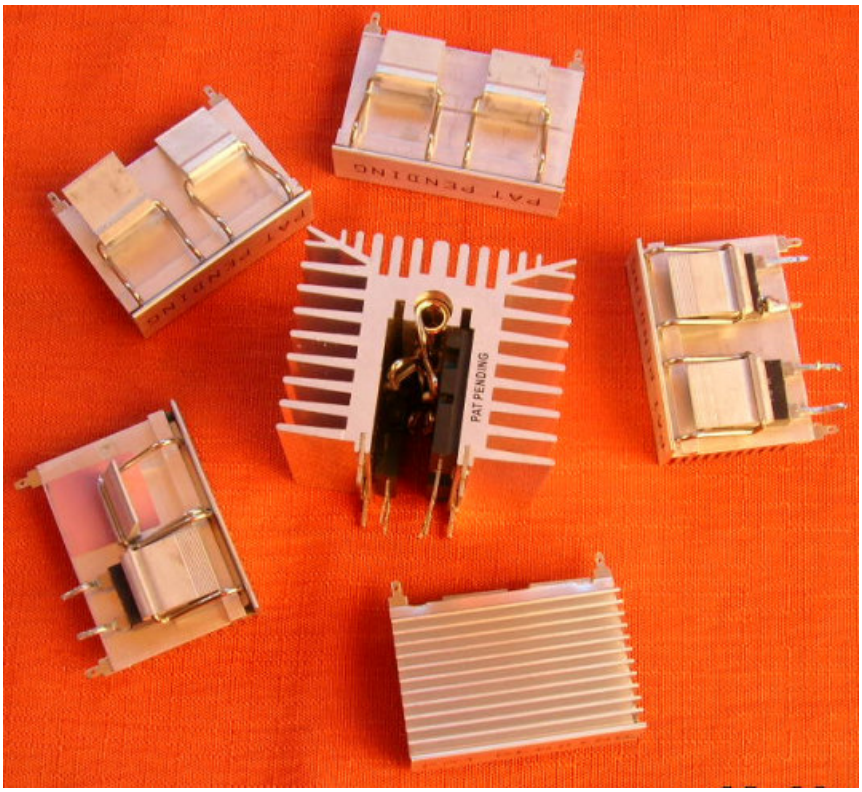


Fig. 5 Application self-align Heat Sink

This heat sink with a simpler auto-align clip is very cheap and light. to assemble. There is a need to have a fixture or simple tool to assemble the device onto the heat sink.



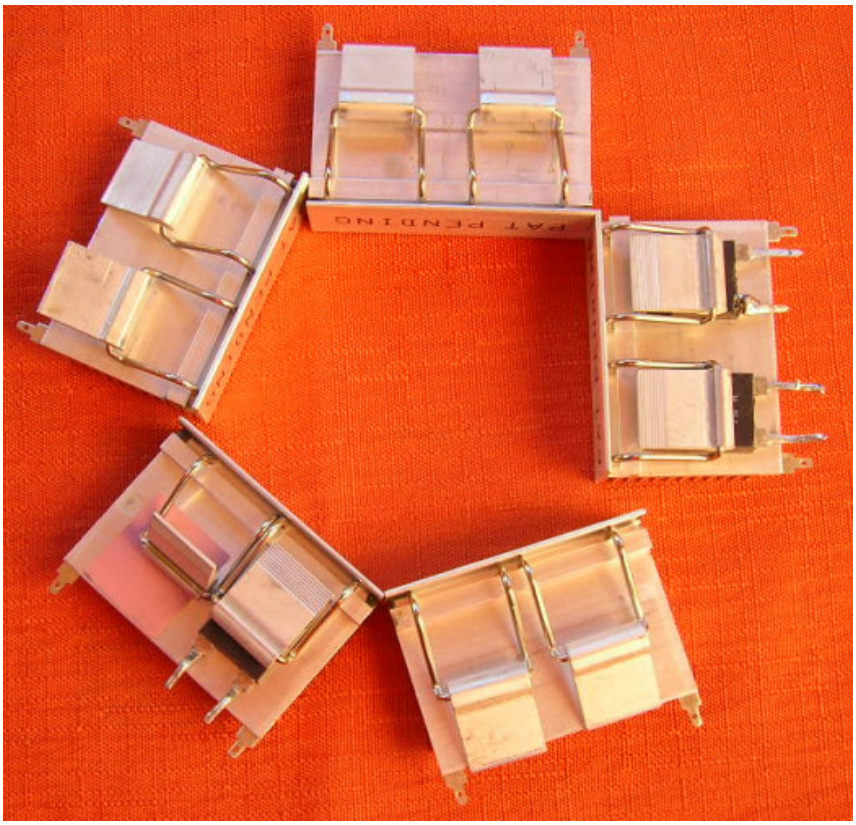


Fig. 6 Application two Slide-in and Clamp

Camming Clip System ™ Heat Sink Thermal Performance

Below is the thermal analysis for a 2.20(L) x 1.50(H) x 0.70(W) heat sink with total of 50 Watts dissipated from the two TO-264 package devices (25 W/ea.) and a small fan of 8 cfm air flow rate. The power density is 22 W/in^2. As seen from the contour plotting, the max. temperature on the TO-264 is about 158 °C in the 25 °C ambient.

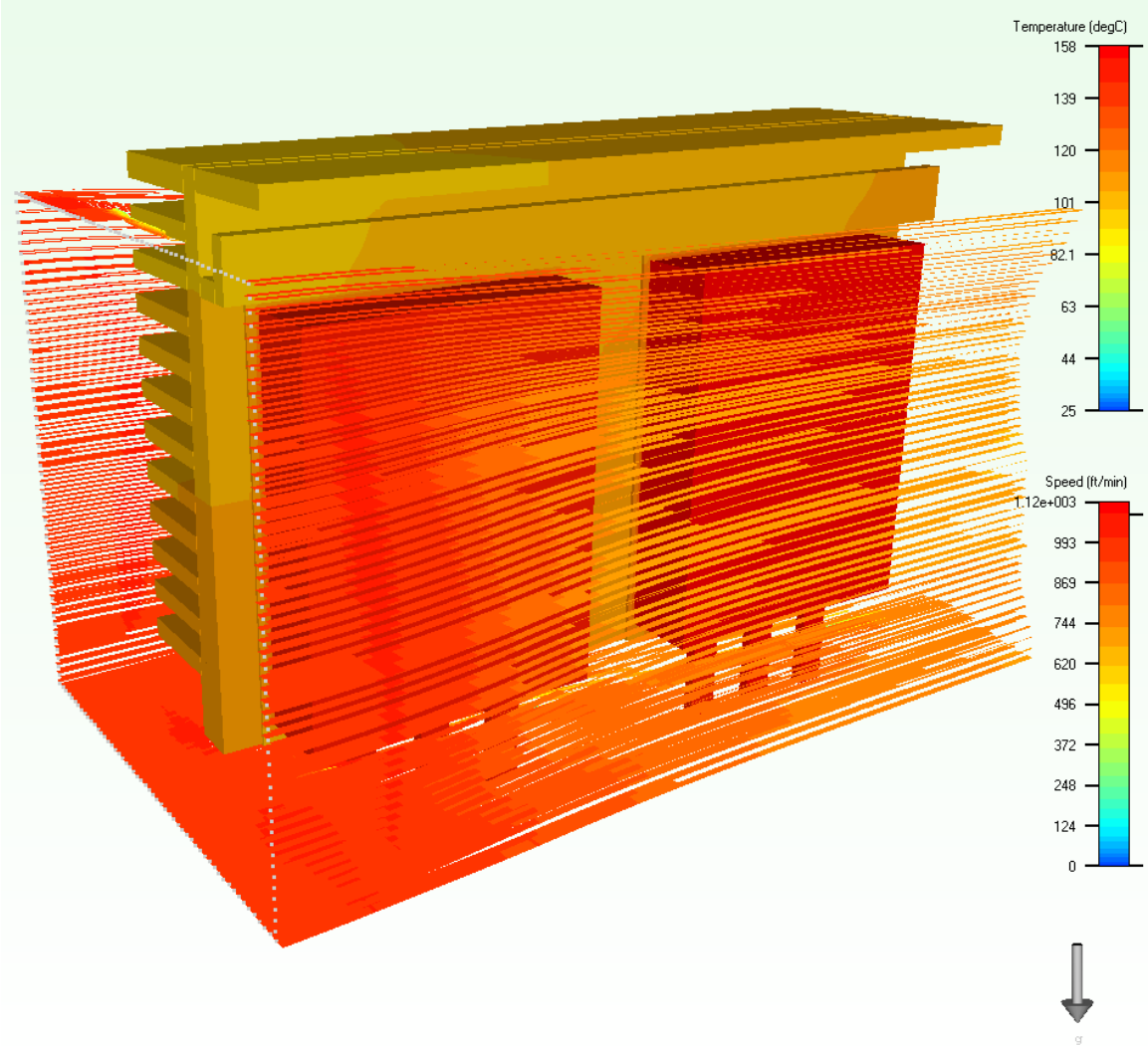


Fig. 7 Velocity Vector of Forced Convection

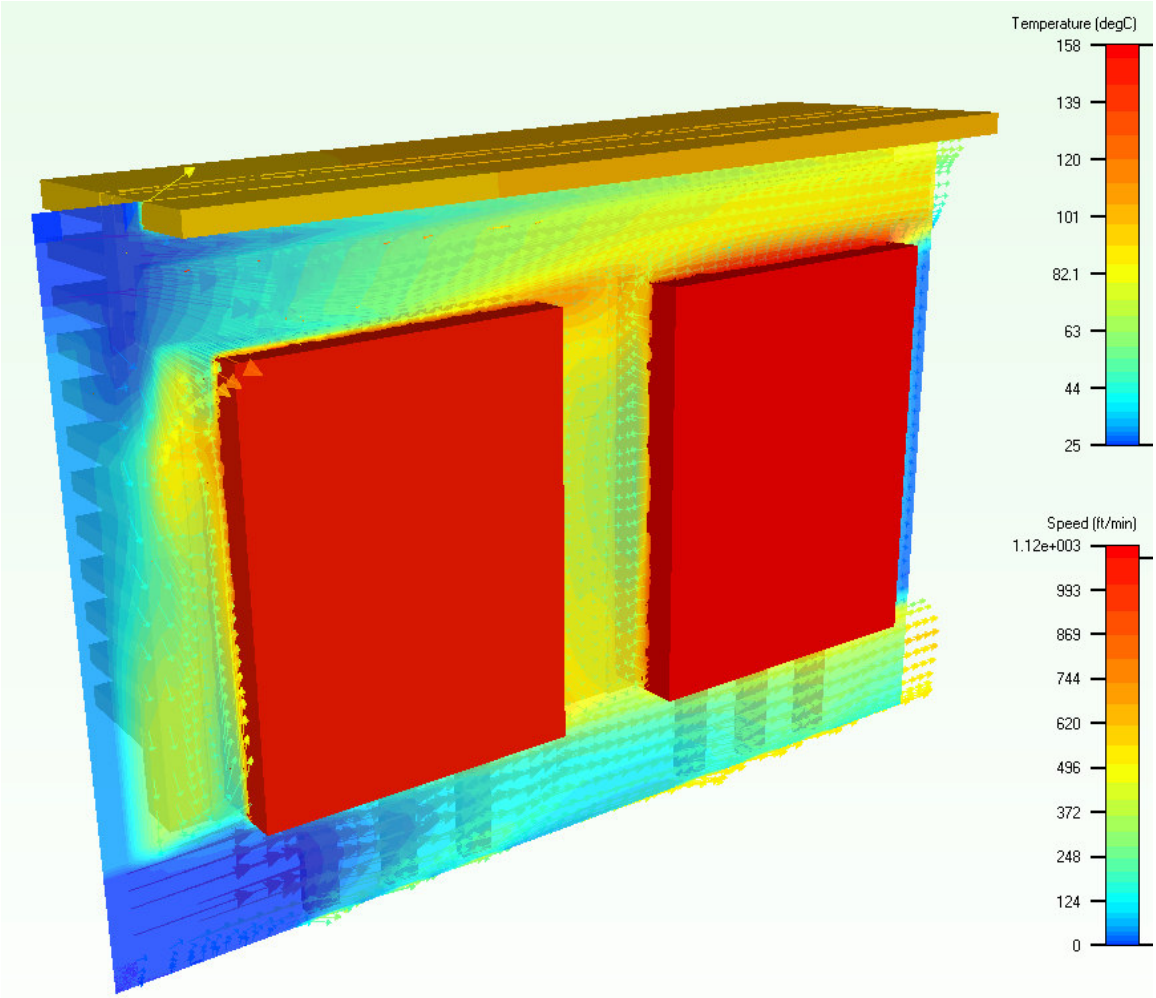


Fig. 8 Temperature Profile of Forced Convection