

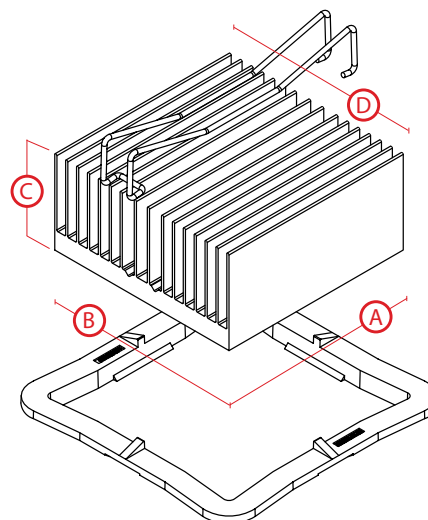


# High Performance BGA Cooling Solutions w/ maxiGRIP™ Attachment

**ATS PART # ATS-53190D-C2-R0**

## Features & Benefits

- » High aspect ratio, straight fin heat sinks that are ideal for compact PCB environments
- » maxiGRIP™ attachment applies steady, even pressure to the component and does not require holes in the PCB
- » Designed specifically for BGAs and other surface mount packages
- » Meets Telcordia GR-63-Core Office Vibration; ETSI 300 019 Transportation Vibration; and MIL-STD-810 Shock Testing and Unpackaged Drop Testing standards
- » Comes preassembled with high performance, phase changing, thermal interface material



*\*Image above is for illustration purposes only.*

## Thermal Performance

### AIR VELOCITY

### THERMAL RESISTANCE

FT/MIN	M/S	°C/W (UNDUCTED FLOW)	°C/W (DUCTED FLOW)
200	1.0	22	11.6
300	1.5	17.5	
400	2.0	15.1	
500	2.5	13.5	
600	3.0	12.3	
700	3.5	11.4	
800	4.0	10.7	

## Product Details

DIMENSION A	DIMENSION B	DIMENSION C	DIMENSION D	INTERFACE MATERIAL	FINISH
19 mm	19 mm	9.5 mm	19 mm	SAINT-GOBAIN C1100F	BLACK-ANODIZED

### NOTES:

- 1) Dimension C = heat sink height from bottom of the base to the top of the fin field.
- 2) ATS-53190D-C1-R0 is a substitute item available utilizing an equivalent phase change material (Chomerics T766).
- 3) Thermal performance data are provided for reference only. Actual performance may vary by application.
- 4) ATS reserves the right to update or change its products without notice to improve the design or performance.
- 5) Optional maxiGRIP™ Installation/Removal Tool Set P/N: MGT190
- 6) Contact ATS to learn about custom options available.



**ATS** ADVANCED THERMAL SOLUTIONS, INC.  
Innovations in Thermal Management®

**For more information, to find a distributor or to place an order, visit [www.qats.com](http://www.qats.com) or call: 781.769.2800 (North America); +31 (0) 3569 84715 (Europe).**