BGA Heat Sink - High Performance maxiFLOW/maxiGRIP-Low Profile



ATS Part#:	**ATS-51190D-C1-R0**
Description:	19.00 x 19.00 x 9.50 mm BGA Heat Sink - High Performance maxiFLOW/maxiGRIP-Low Profile
Heat Sink Type:	maxiFLOW
Heat Sink Attachment:	maxiGRIP
Equivalent Part Number:	ATS-51190D-C2-R0 Discontinued

**Image above is for illustration purpose only.*

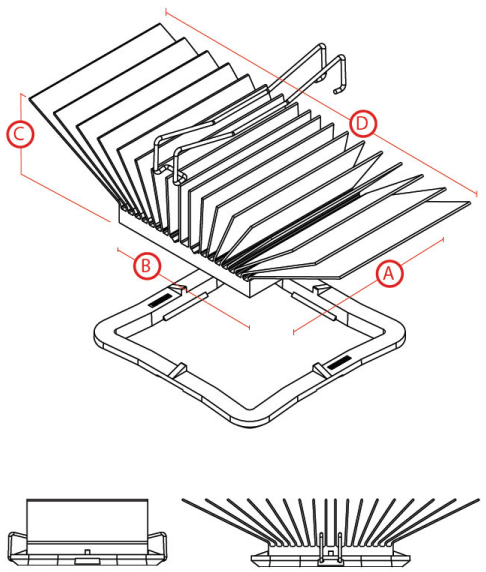
Features & Benefits

- **maxiFLOW™** design features a low profile, spread fin array that maximizes surface area for more effective convection (air) cooling
- **maxiGRIP™** attachment applies steady, even pressure to the component and does not require holes in the PCB
- Meets Telcordia GR-63-Core Office Vibration; ETSI 300 019 Transportation Vibration; and MIL-STD-810 Shock and Unpackaged Drop Testing standards
- Comes preassembled with high performance, phase changing, thermal interface material
- Designed for low profile components from 1.5 to 2.99mm

Thermal Performance

AIR VELOCITY		@200 LFM 1.0 M/S	@300 LFM 1.5 M/S	@400 LFM 2.0 M/S	@500 LFM 2.5 M/S	@600 LFM 3.0 M/S	@700 LFM 3.5 M/S	@800 LFM 4.0 M/S
THERMAL RESISTANCE	Unducted Flow	16.7 °C/W	13.6 °C/W	11.8 °C/W	10.5 °C/W	9.6 °C/W	8.9 °C/W	8.4 °C/W
	Ducted Flow	11.6	N/A	N/A	N/A	N/A	N/A	N/A

Product Detail

Schematic Image	Dimension A	Dimension B	Dimension C	Dimension D	TIM	Finish
 **Image above is for illustration purpose only.*	19.00 mm	19.00 mm	9.50 mm	31.5 mm	T766	BLACK- ANODIZED

Notes:

- Dimension A and B refer to component size.
- Dimension C is the heat sink height from the bottom of the base to the top of the fin field.
- ATS-51190D-C2-R0 is the exact heat sink assembly with an equivalent thermal interface material (Saint Gobain C1100F). NOTE: Saint Gobain C1100F is discontinued effective 12/31/10.
- Thermal performance data are provided for reference only. Actual performance may vary by application.
- ATS reserves the right to update or change its products without notice to improve the design or performance.
- ATS certifies that this heat sink assembly is RoHS-6 and REACH compliant.
- Optional **maxiGRIP™** Installation/Removal Tool Set P/N: **MGT170**
- Contact ATS to learn about custom options available.

For more information, to find a distributor or to place an order, please contact us at 781-769-2800 (North America), **sales@qats.com** or **www.qats.com**.

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