

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 |
|--|-------------|-------------|-------------|-------------|------|-----------------|
| <p><i>*Image above is for illustration purpose only.</i></p> | 19.00 mm | 19.00 mm | 9.50 mm | 31.5 mm | T766 | BLACK- ANODIZED |
| Notes: <ul style="list-style-type: none"> • 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: MGT190 • 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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