

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



|                         |                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------|
| ATS Part#:              | <b>ATS-51310D-C1-R0</b>                                                                |
| Description:            | 31.00 x 31.00 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-51310D-C2-R0 <b>Discontinued</b>                                                   |

*\*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<br>1.0 M/S | @300 LFM<br>1.5 M/S | @400 LFM<br>2.0 M/S | @500 LFM<br>2.5 M/S | @600 LFM<br>3.0 M/S | @700 LFM<br>3.5 M/S | @800 LFM<br>4.0 M/S |
|--------------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| THERMAL RESISTANCE | Unducted Flow | 7 °C/W              | 5.6 °C/W            | 4.8 °C/W            | 4.3 °C/W            | 3.9 °C/W            | 3.6 °C/W            | 3.4 °C/W            |
|                    | Ducted Flow   | 4.8                 | 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 31.00 mm    | 31.00 mm    | 9.50 mm     | 44.4 mm     | T766 | BLACK- ANODIZED |
| <b>Notes:</b> <ul style="list-style-type: none"> <li>• Dimension <b>A</b> and <b>B</b> refer to component size.</li> <li>• Dimension <b>C</b> is the heat sink height from the bottom of the base to the top of the fin field.</li> <li>• ATS-51310D-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.</li> <li>• Thermal performance data are provided for reference only. Actual performance may vary by application.</li> <li>• ATS reserves the right to update or change its products without notice to improve the design or performance.</li> <li>• ATS certifies that this heat sink assembly is RoHS-6 and REACH compliant.</li> <li>• Optional <b>maxiGRIP™</b> Installation/Removal Tool Set P/N: <b>MGT310</b></li> <li>• Contact ATS to learn about custom options available.</li> </ul> |             |             |             |             |      |                 |

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

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