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



ATS Part#: Description: ATS-51190R-C1-R0

19.00 x 19.00 x 19.50 mm BGA Heat Sink - High Performance maxiFLOW/maxiGRIP-Low Profile

 Heat Sink Type:
 maxiFLOW

 Heat Sink Attachment:
 maxiGRIP

 Equivalent Part Number:
 ATS-51190R-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	7.5 °C/W	6.2 °C/W	5.4 °C/W	4.9 °C/W	4.5 °C/W	4.2 °C/W	3.9 °C/W
	Ducted Flow	6.1	N/A	N/A	N/A	N/A	N/A	N/A

### **Product Detail**

Schematic Image	Dimension A	Dimension B	Dimension C	Dimension D	ТІМ	Finish			
	19.00 mm	19.00 mm	19.50 mm	34.7 mm	T766	BLACK- ANODIZED			
<ul> <li>Notes:</li> <li>Dimension A and B refer to component size.</li> <li>Dimension C is the heat sink height from the bottom of the base to the top of the fin field.</li> <li>ATS-51190R-C2-R0 is the exact heat sink assembly with an equivalent thermal interface materrises (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> </ul>									
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.									
*Image above is for illustration purpose only.			usion options availe	abie.					

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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