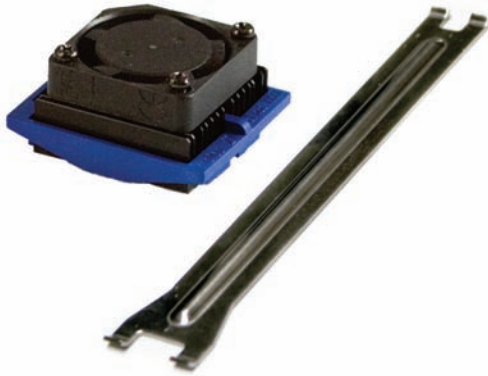


# FI & FJ Series

Active BGAHeatsinks

Removable Fan Sinks for BGAChipsets



The F-Series of Aluminum Plate Fin BGA Heatsinks with Fans are

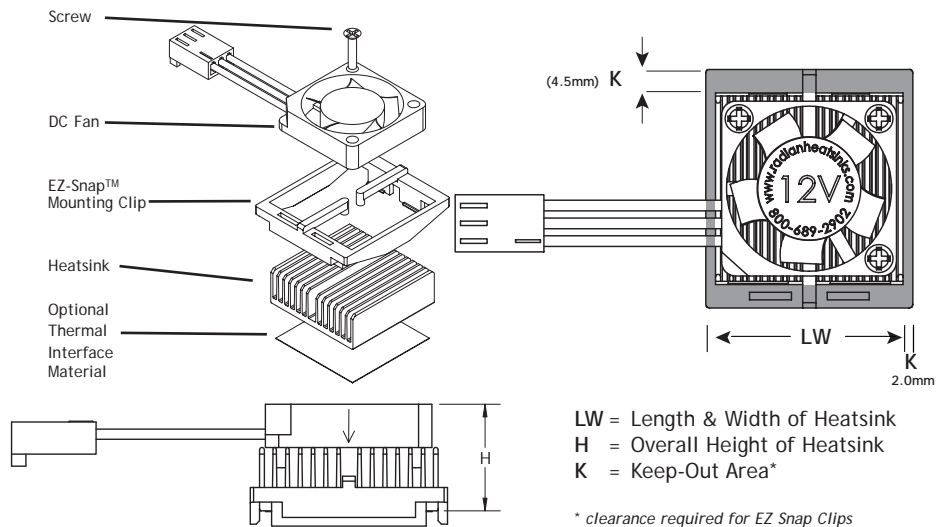
These devices mount with EZ Snap™ Mounting Clips to provide optimum cooling for various package sizes. These off-the-shelf, high efficiency solutions are easy to install and require no special board modifications or complex assemblies.

## Features:

- \* High efficiency aluminum plate fin design provides low pressure-drop characteristics
- \* Constructed of Extruded Aluminium AL6063 for optimum heat transfer
- \* DCFan for improved heat dissipation
- \* Designed specifically for BGAs and other surface mount packages
- \* EZ-Snap™ Mounting Clip is constructed of UL94-V0 Rated Nylon
- \* Use Clip Tool HS8063 to attach (or remove) heatsink directly to BGAChip
- \* Finished with black anodize plating
- \* Clip & Thermal Pad Options are pre-assembled at the factory

## Mechanical Outline Drawing

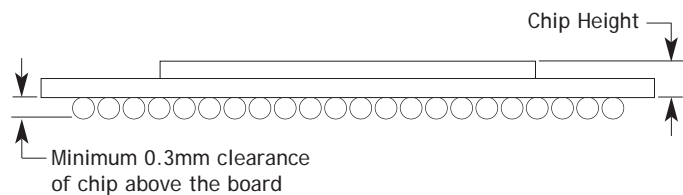
(See 2nd page for "LW" & "H" dimensional values)



## EZ Snap™ Mounting Clip

CLIPS DIRECTLY TO BGA CHIP WITH HS:8063 CLIP TOOL

See page 2 for fitting chip heights. Consult factory for unique Chip Height Requirements



- Note 1: Chip height measurements exclude ball dimensions (0.3mm)
- Note 2: Chip must have 0.3mm clearance above the board for clip to adhere properly
- Note 3: Maintain keep-out clearance of 2mm Length side and 4.5mm Width side around chip for clip to adhere properly



**Radian Heatsinks**

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# FI & FJ Series

## Active BGAHeatsinks

Length & Width of Heatsink (mm)	Part Number <sup>(1)</sup>					Heatsink Height (mm)	R-theta	Fan Spec	Harness Spec	
	Fansink		Optional Mounting Clip		Optional Thermal Tape/Pad Part #					
	Fansink Part #	Voltage Input	Optional Mounting Clip	Fits Chip Heights (mm)						
27	FI27	12V	O	0.9-1.4	T725	16	2.13	Airflow: 2.4 CFM	Length: 140 mm (+/-10)	
			-or-							
			BU	1.5-2.0						
	FJ27	5V	-or-		3M8815					
			Y	2.1-2.6						

### Notes:

- 1) Add suffix "+T725" to designate Thermally Conductive Phase Change Pad (Chomerics Part # T725).
- 2) Mounting Clips are constructed of UL94-VO rated nylon material and black in color.
- 3) Thermal Data provided is for reference only. Actual Cooling Performance may vary by application.
- 4) Specifications are subject to change without notice.



\* Contact Radian to discuss unique Heatsink, Clip and Interface requirements.

### Passive BGACooler Products:

**HS1800 Series:**  
21-45mm Plate Fin (Aluminum) Ideal for Linear Air Flow

**HS2000-060 Series:**  
21-45mm Round Pin (Aluminum) Ideal for Omni Directional Air Flow

**HS2000-080 Series:**  
21-45mm Round Pin (Aluminum) Ideal for Omni Directional Air Flow

**INM-PCU Series:**  
19-42.5mm Round Pin (Copper) Ideal for Omni Directional Air Flow

**INM-WSeries**  
19-45mm Elliptical Fin (Aluminum) Ideal for Linear Airflow and where Multiple Heatsinks are utilized

**INM-PSeries:**  
27-42.5mm Round Pin (Aluminum) Ideal for Omni-Directional Airflow

**INE Series:**  
21-45mm Cross Cut Fin (Aluminum) Ideal for Linear Airflow

### Custom Design and Manufacturing Services:

Our experienced engineers and production specialists are dedicated to the design and manufacture of cooling solutions to match our customers specific thermal issues, quickly and cost-effectively.

Features of our services include:

- \* Free Engineering Consultation
- \* Complimentary Thermal Analysis (Computational Fluid Dynamics and Design Simulation/Modeling)
- \* Wide range of technologies including: Investment Casting; Die Casting; Precision Forging; Skived Fin; Extrusions; Stamped Fin; and Custom Machining
- \* Rapid Prototyping Services to deliver concept models in as little as 2-5 business days and working prototypes in 1-3 weeks

Contact Radian Heatsinks to discuss your specific requirement today.



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