Heat Sink Fan Combinations

HSF Series

Wakefield-Vette's Heat Sink Fan Series (HSF) are for Chipset can match up to devices from Intel, Broadcom, Xilinx, TI, Motorola, ATI, AMD, Nvidia, Vishay, Powerex, Infineon, Microsemi, and many more.

These heat sinks are designed for air flow applications in the Telecom, Data Center, Networking, Cloud Computing, and many more Industries.

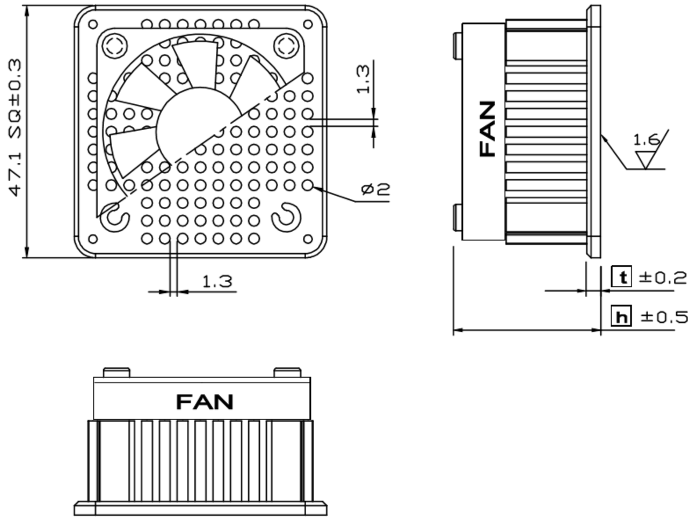
Material: AL 6063

Finish: Black Anodize

Series-	Chip Size-	Height-	Chip Height-	Fan
HSF	48	mm	B-Blue (2.2-3.4mm)	F (Fan)
	50		Y- Yellow (.9-2.1mm)	N (No Fan)
	55			

WKV Part Number	Chip Size	Height (mm)	C/W	Chip Height	Fan
HSF-48-19-B-F	47.5 x 47.5mm	18.5	1.41	2.2-3.4mm	5.9CFM
HSF-48-19-Y-F	47.5 x 47.5mm	18.5	1.41	.9-2.1mm	5.9CFM
HSF-48-22-B-F	47.5 x 47.5mm	21.5	1.14	2.2-3.4mm	5.9CFM
HSF-48-22-Y-F	47.5 x 47.5mm	21.5	1.14	.9-2.1mm	5.9CFM
HSF-48-25-B-F	47.5 x 47.5mm	24.5	0.98	2.2-3.4mm	5.9CFM
HSF-48-25-Y-F	47.5 x 47.5mm	24.5	0.98	.9-2.1mm	5.9CFM
HSF-48-28-B-F	47.5 x 47.5mm	27.5	0.88	2.2-3.4mm	5.9CFM
HSF-48-28-Y-F	47.5 x 47.5mm	27.5	0.88	.9-2.1mm	5.9CFM
HSF-48-30-B-F	47.5 x 47.5mm	29.5	0.83	2.2-3.4mm	5.9CFM
HSF-48-30-Y-F	47.5 x 47.5mm	29.5	0.83	.9-2.1mm	5.9CFM
HSF-48-35-B-F	47.5 x 47.5mm	34.5	0.77	2.2-3.4mm	5.9CFM
HSF-48-35-Y-F	47.5 x 47.5mm	34.5	0.77	.9-2.1mm	5.9CFM
HSF-48-40-B-F	47.5 x 47.5mm	39.5	0.72	2.2-3.4mm	5.9CFM
HSF-48-40-Y-F	47.5 x 47.5mm	39.5	0.72	.9-2.1mm	5.9CFM
HSF-50-19-B-F	50 x 50mm	18.5	1.31	2.2-3.4mm	5.9CFM
HSF-50-19-Y-F	50 x 50mm	18.5	1.31	.9-2.1mm	5.9CFM
HSF-50-22-B-F	50 x 50mm	21.5	1.06	2.2-3.4mm	5.9CFM
HSF-50-22-Y-F	50 x 50mm	21.5	1.06	.9-2.1mm	5.9CFM
HSF-50-25-B-F	50 x 50mm	24.5	0.91	2.2-3.4mm	5.9CFM
HSF-50-25-Y-F	50 x 50mm	24.5	0.91	.9-2.1mm	5.9CFM
HSF-50-28-B-F	50 x 50mm	27.5	0.82	2.2-3.4mm	5.9CFM
HSF-50-28-Y-F	50 x 50mm	27.5	0.82	.9-2.1mm	5.9CFM
HSF-50-30-B-F	50 x 50mm	29.5	0.77	2.2-3.4mm	5.9CFM
HSF-50-30-Y-F	50 x 50mm	29.5	0.77	.9-2.1mm	5.9CFM
HSF-50-35-B-F	50 x 50mm	34.5	0.71	2.2-3.4mm	5.9CFM
HSF-50-35-Y-F	50 x 50mm	34.5	0.71	.9-2.1mm	5.9CFM
HSF-50-40-B-F	50 x 50mm	39.5	0.67	2.2-3.4mm	5.9CFM
HSF-50-40-Y-F	50 x 50mm	39.5	0.67	.9-2.1mm	5.9CFM
HSF-55-24-B-F	55 x 55mm	24.1	1	2.2-3.4mm	13.8CFM
HSF-55-24-Y-F	55 x 55mm	24.1	1	.9-2.1mm	13.8CFM
HSF-55-27-B-F	55 x 55mm	27.1	0.81	2.2-3.4mm	13.8CFM
HSF-55-27-Y-F	55 x 55mm	27.1	0.81	.9-2.1mm	13.8CFM
HSF-55-30-B-F	55 x 55mm	30.1	0.7	2.2-3.4mm	13.8CFM
HSF-55-30-Y-F	55 x 55mm	30.1	0.7	.9-2.1mm	13.8CFM
HSF-55-33-B-F	55 x 55mm	33.1	0.63	2.2-3.4mm	13.8CFM
HSF-55-33-Y-F	55 x 55mm	33.1	0.63	.9-2.1mm	13.8CFM
HSF-55-35-B-F	55 x 55mm	35.1	0.59	2.2-3.4mm	13.8CFM
HSF-55-35-Y-F	55 x 55mm	35.1	0.59	.9-2.1mm	13.8CFM
HSF-55-40-B-F	55 x 55mm	40.1	0.55	2.2-3.4mm	13.8CFM
HSF-55-40-Y-F	55 x 55mm	40.1	0.55	.9-2.1mm	13.8CFM
HSF-55-45-B-F	55 x 55mm	45.1	0.51	2.2-3.4mm	13.8CFM
HSF-55-45-Y-F	55 x 55mm	45.1	0.51	.9-2.1mm	13.8CFM

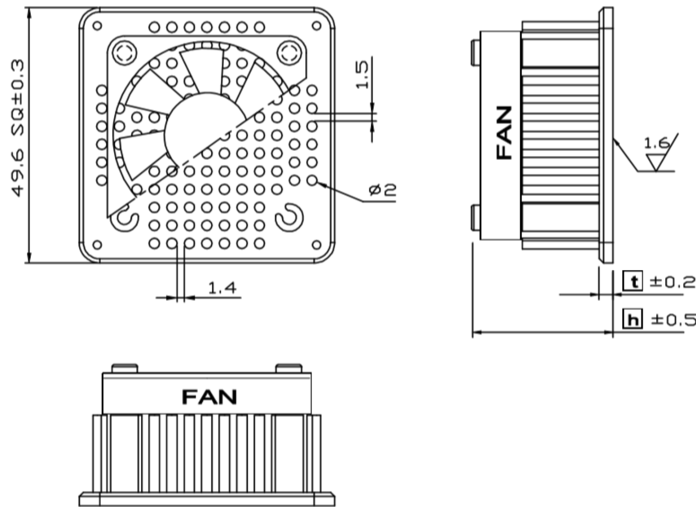
Chip Size 47.5x 47.5mm



Fan spec

Dimension	40 x 40 x 6.9 mm
Rated Voltage	5V
Air Flow	5.9 CFM
Speed	7000 RPM
Noise	29 dB(A)
Connector	Molex 2695-3P

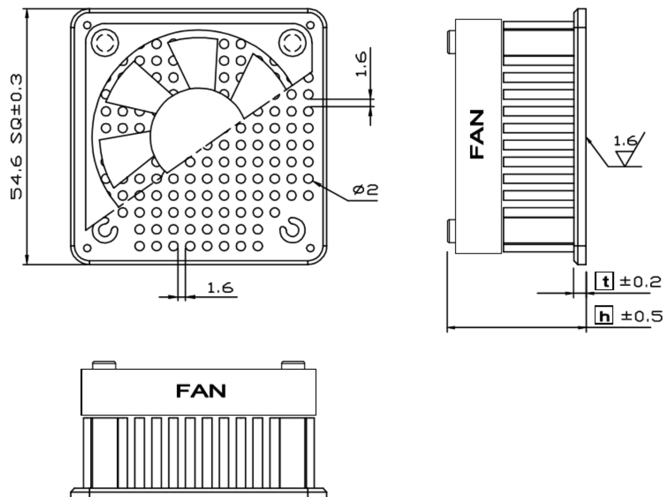
Chip Size 50 x 50mm



Fan spec

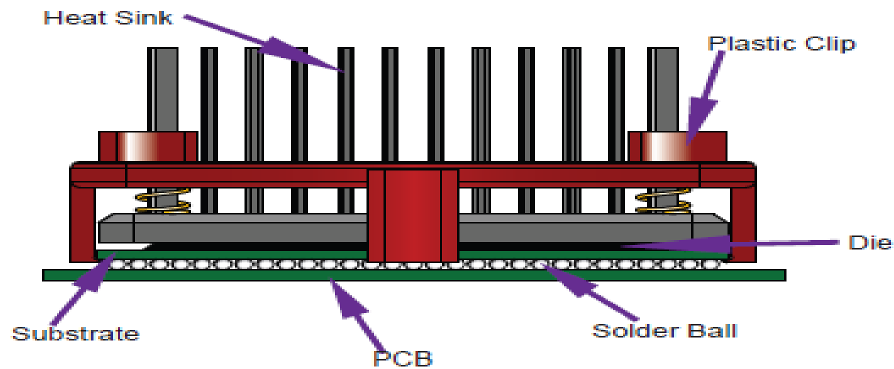
Dimension	40 x 40 x 6.9 mm
Rated Voltage	5V
Air Flow	5.9 CFM
Speed	7000 RPM
Noise	29 dB(A)
Connector	Molex 2695-3P

Chip Size 55 x 55mm



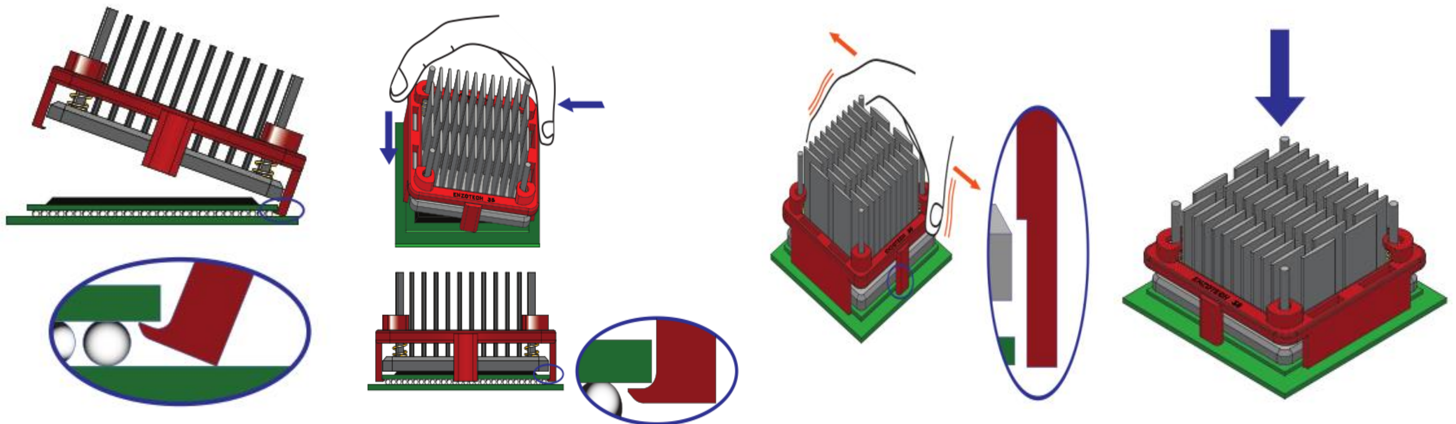
Fan spec

Dimension	50 x 50 x 10 mm
Rated Voltage	12V
Air Flow	13.8 CFM
Speed	5500 RPM
Noise	31 dB(A)
Connector	Molex 2695-3P



Wakefield-Vette's heat sink assembles onto chip set using the space that is between the PCB and the substrate of the solder balls. The solder balls provide a minimal gap of .5mm to .7mm. Attachment feature is below a .4mm thickness. The clipping system will not interfere or damage chip. Contact area is the edge of chip.

ASSEMBLY INSTRUCTION:



Step 1: Hook the clip under one side of the BGA chip set.

Step 2: Rotate assembly down until opposite side clip engages substrate edge of BGA chip set.

Step 3: Make sure the sop rods are clearing from edges of BGA chip set.

Step 4: Press firmly down to make sure clips fully engage edges of chip set. Heat Sink should not move around easily.

Random Vibration Test

Frequency : 5 Hz to 500 Hz
Acceleration : 3.13 grms
P.S.D : 0.01 g2/HZ (5 Hz)
0.02 g2/HZ (20 Hz to 500 Hz)
Test Axis : X, Y, Z axis
Test Time : 10 mins (Each axis)
Total Test Time : 30 mins

SHOCK TEST SPECIFICATION :

Wave Form : Half sine wave
Acceleration : 50 g
Duration Time : 11 ms
No. of Shock : Each axis 3 times
Shock Direction : ±X, ±Y, ±Z axis
Reliability & Communication Testing Instruments