PIN FIN HEAT SINK

902 Series

Wakefield-Vette's 900 Series Heat Sinks for Chipset can match up to devices from
Intel, Broadcom, Xilinx, TI, Motorola, ATI, AMD, Nvidia, Vishay, Pow erex, Infineon, Microsemi, and many more.

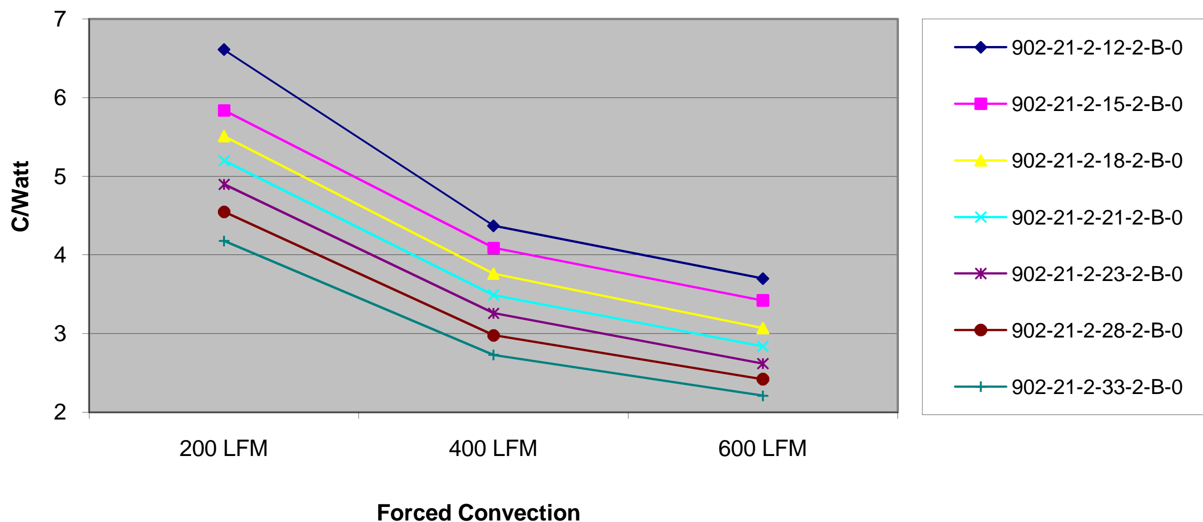
These heat sinks are designed for air flow applications in the Telecom, Data Center, Networking, Cloud Computing, and many more Industries.

Material: AL 6063

Finish: Black Anodize

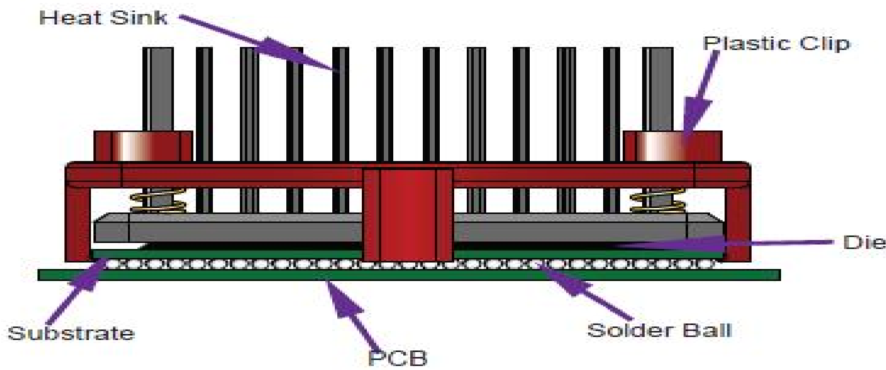
PART #	HEIGHT (mm)	CHIP SIZE (mm)	NATURAL CONVECTION	FORCED CONVECTION (C/W)		
				200 LFM	400 LFM	600 LFM
902-21-2-12-2-B-0	12	21mm	12.4 C/W	6.61 C/W	4.37 C/W	3.7 C/W
902-21-2-15-2-B-0	15	21mm	11.73 C/W	5.84 C/W	4.09 C/W	3.42 C/W
902-21-2-18-2-B-0	18	21mm	11.06 C/W	5.51 C/W	3.76 C/W	3.07 C/W
902-21-2-21-2-B-0	21	21mm	10.38 C/W	5.20 C/W	3.49 C/W	2.84 C/W
902-21-2-23-2-B-0	23	21mm	10.27 C/W	4.9 C/W	3.26 C/W	2.62 C/W
902-21-2-28-2-B-0	28	21mm	9.98 C/W	4.55 C/W	2.98 C/W	2.42 C/W
902-21-2-33-2-B-0	33	21mm	9.7 C/W	4.18 C/W	2.73 C/W	2.21 C/W

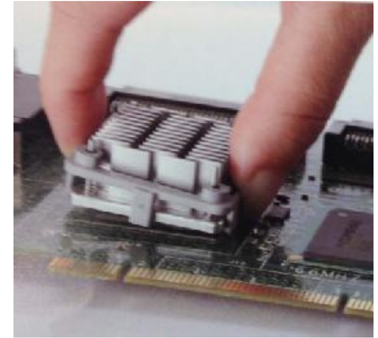
THERMAL PERFORMANCE:



Series	Chip Size	Construction	Height	Chip Height	Finish	Interface
	19-	2-	12-	1-	B-	1
	19		12 = 11.6	1 = .9-2.1		0 = None
	21		15 = 14.6	2 = 2.2-3.4		1 = T725
	23		18 = 17.6			
	27		21 = 20.6			
902-	29	2= Pin Fin	23 = 22.6		B = BLK ANO	
	31		28 = 27.6			
	33		33 = 32.6			
	35					
	37.5					
	40					

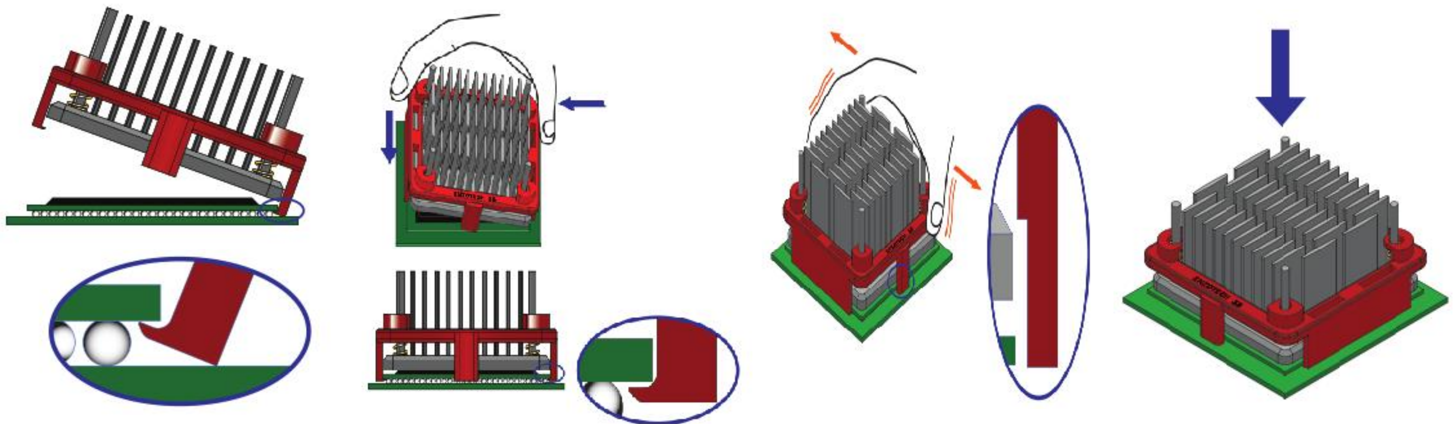
wakefield-vette





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.

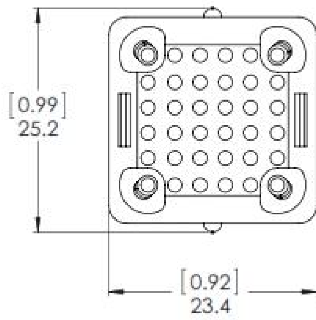
Step 4: Press firmly down to make sure clips fully engage edges of chip set. Heat Sink should not move around easily.

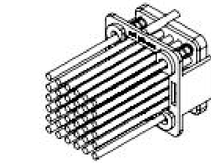
Random Vibration Test

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

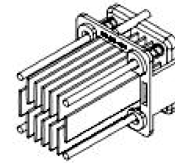
SHOCK TEST SPECIFICATION :

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

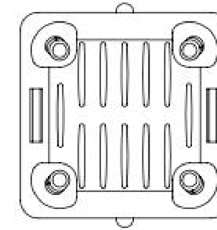




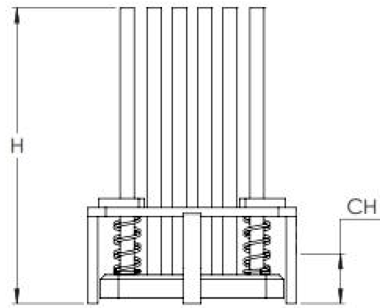
CONSTRUCTION CODE- 2
PIN FINS
6 X 6 PIN ARRAY =
36 FINS, 1.6 mm DIA.



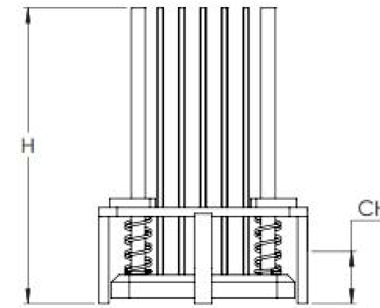
CONSTRUCTION CODE- 1
ELIPTICAL FINS
12 FINS, 7.2 Lg X 0.7 W mm
4 CORNER PIN FINS



HEIGHT (H) CODE	ACTUAL mm
12-	11.6
15-	14.6
18-	17.6
21-	20.6
23-	22.6
28-	27.6
33-	32.6



CHIP HEIGHT (CH) CODE	ACTUAL RANGE mm
1-	0.9 to 2.1
2-	2.2 to 3.4



902 SERIES FOR 21mm CHIPS

PROPRIETARY AND CONFIDENTIAL

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MATERIAL: 6063-T5 AL ALLOY

FINISH: BLACK ANODIZE

THIRD ANGLE PROJECTION

APPROVALS	DATE:
DRAWN:	10/21/2014
CHK:	
DSGN ENG:	10/21/2014
MFG ENG:	
QA:	

TOLERANCES
ALL DIMS IN MM(IN)
.xx ± 0.5 (0.020")
.xxx ± 0.25(0.010")
Angles ± 3°

DRAWING NOT TOSCALE

REVISION:

SCALE: 2:1

wakefield-vette
33 BRIDGE ST. PELHAM, NH 03076 (603)635-2800

TITLE: 902 SERIES

DESCRIPTION: CHIPSET HEAT SINKS

DWG. NO. 902 Series 1 OF 1

SH_SIZE: B

MODEL_INFO:
MBA21052-no lip