PIN FIN HEAT SINK

901 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, 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.

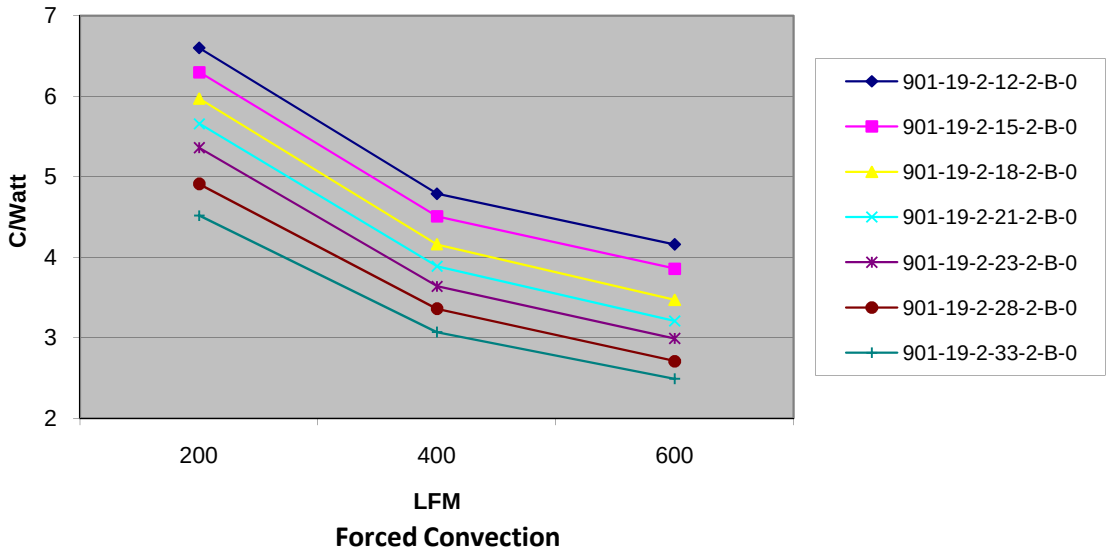
Material: AL 6063

Finish: Black Anodize

RoHS

PART #	HEIGHT (mm)	CHIP SIZE (mm)	NATURAL CONVECTION	FORCED CONVECTION (C/W)		
				200 LFM	400 LFM	600 LFM
901-19-2-12-2-B-0	12	19	12.74 C/W	6.6 C/W	4.79 C/W	4.16 C/W
901-19-2-15-2-B-0	15	19	12.05 C/W	6.3 C/W	4.51 C/W	3.86 C/W
901-19-2-18-2-B-0	18	19	11.35 C/W	5.97 C/W	4.16 C/W	3.47 C/W
901-19-2-21-2-B-0	21	19	10.66 C/W	5.66 C/W	3.89 C/W	3.21 C/W
901-19-2-23-2-B-0	23	19	10.55 C/W	5.36 C/W	3.64 C/W	2.99 C/W
901-19-2-28-2-B-0	28	19	10.27 C/W	4.91 C/W	3.36 C/W	2.71 C/W
901-19-2-33-2-B-0	33	19	9.99 C/W	4.52 C/W	3.07 C/W	2.49 C/W

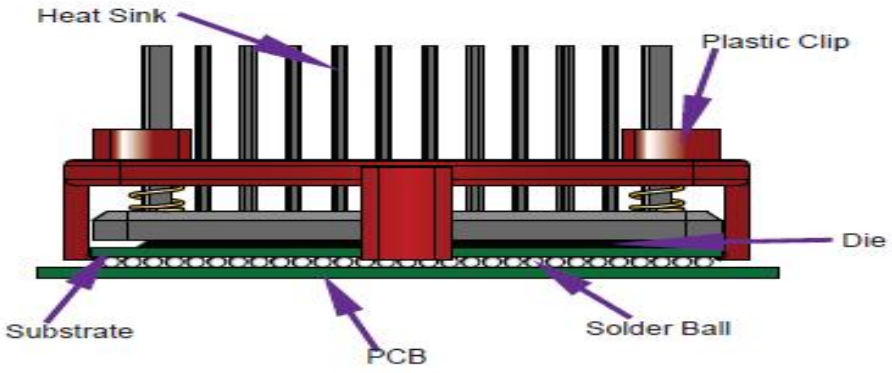
THERMAL PERFORMANCE:

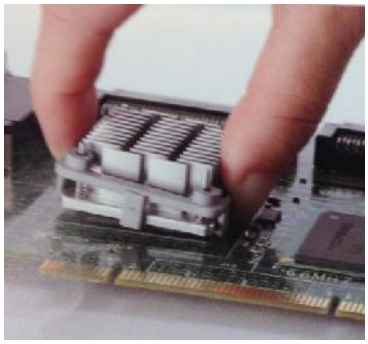


Series	Chip Size	Construction	Height	Chip Height	Finish	Interface
	19-	2-	12-	1-	B-	1
	19		12 = 11.6	1 = .9-2.1		0 = None
	21		15 = 14.6	2 = 2.2-3.4		1 = T725
	23		18 = 17.6			
	27		21 = 20.6			
901-	29	2= Pin Fin	23 = 22.6		B = BLK ANO	
	31		28 = 27.6			
	33		33 = 32.6			
	35					
	37.5					
	40					

PIN FIN HEAT SINK

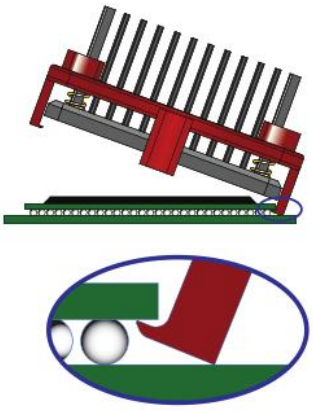
901 Series



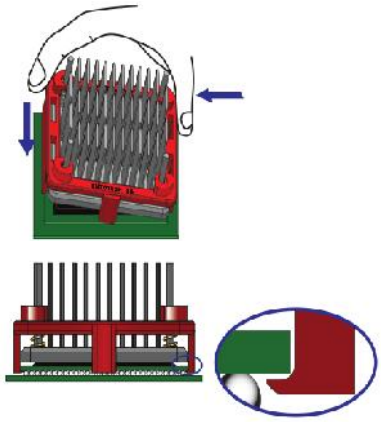


Wakefield-Vette's heat sink assembles onto chip set using the space that is between the PCB and the substrate of the solder balls. The solder balls provide a minimal gap of .5mm to .7mm. Attachment feature is below a .4mm thickness. The clipping system will not interfere or damage chip. Contact area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

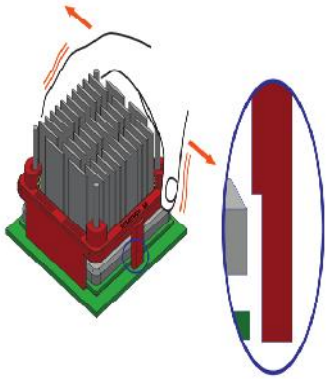
ASSEMBLY INSTRUCTION:



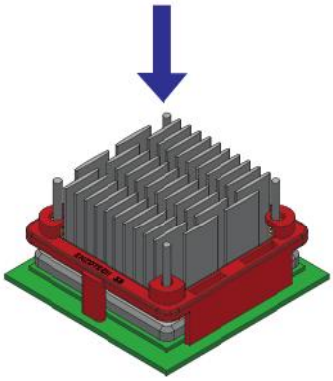
Step 1: Hook the clip under one side of the BGA chip set.



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



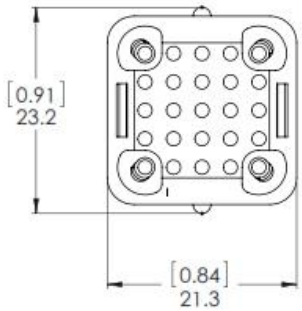
Step 3: Make sure the sop rods are clearing from edges of BGA chip set.

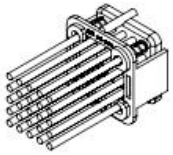


Step 4: Press firmly down to make sure clips fully engage edges of chip set. Heat Sink should not move around easily.

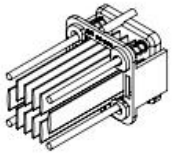
Random Vibration Test
Frequency : 5 Hz to 500 Hz
Acceleration : 3.13 grms
P.S.D : 0.01 g2/HZ (5 Hz)
0.02 g2/HZ (20 Hz to 500 Hz)
Test Axis : X, Y, Z axis
Test Time : 10 mins (Each axis)
Total Test Time : 30 mins

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

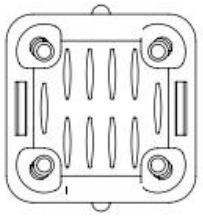


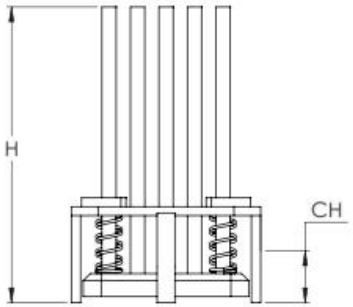


CONSTRUCTION CODE- 2
PIN FINS
5 X 5 PIN ARRAY =
25 FINS, 1.6 mm DIA.



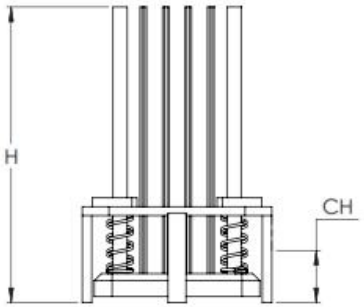
CONSTRUCTION CODE- 1
ELIPTICAL FINS
10 FINS, 5.4 Lg X 0.8 W mm
4 CORNER PIN FINS





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



901 SERIES FOR 19mm CHIPS

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: 901 SERIES

DESCRIPTION: CHIPSET HEAT SINKS

DWG. NO. 901 Series 1 OF 1

MATERIAL: 6063-T5 AL ALLOY

FINISH: BLACK ANODIZE

MODEL INFO:
MBA19051-no lip

SH_SIZE: B