

**ASIC Cooling Solutions**

Custom maxiFLOW™ Heat Sinks, Black Anodized

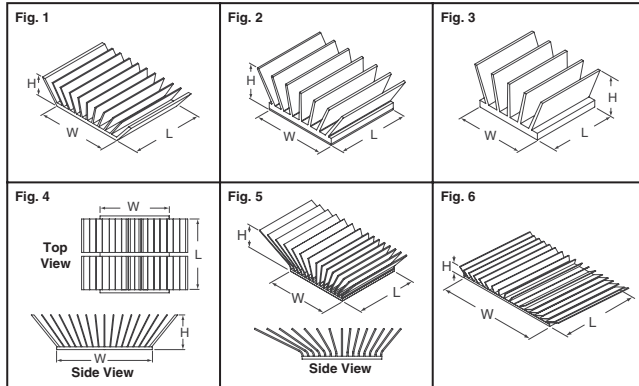


Fig.	Dimensions (mm)			Thermal Resistance		Digi-Key Part No.	Price Each		
	L	W	H	Unducted Flow @ 200 LFM (1m/sec.)	Ducted Flow @ 200 LFM (1m/sec.)		1	10	100
<b>With Tape</b>									
1	30	30	9	4.0	2.2	ATS1331-ND	11.13	8.47	7.26
	40	30	5	7.9	4.8	ATS1335-ND	13.23	10.18	8.53
	50	45	15	2.8	1.65	ATS1336-ND	17.27	13.35	11.19
	50	45	12.5	3.9	1.7	ATS1337-ND	17.33	14.03	11.76
	45	45	15	2.4	1.7	ATS1338-ND	17.54	14.20	11.90
	45	45	16.5	2.1	1.3	ATS1339-ND	18.44	14.93	12.52
2	50	45	8.5	4.0	2.3	ATS1341-ND	13.34	10.26	8.60
	57.5	57.5	12.5	2.3	1.1	ATS1342-ND	22.70	18.51	15.89
	19	19	9	5.3	3.3	ATS1332-ND†	6.37	4.66	3.80
3	25	25	4	9.0	5.2	ATS1333-ND	9.50	7.13	5.94
	15	15	9	12.0	9.0	ATS1334-ND	12.89	9.92	8.31
4	58	30	9	4.8	2.4	ATS1340-ND	13.14	10.11	8.47
5	42	42	16	2.8	1.4	ATS1343-NDΔ	20.56	16.16	13.96
	42	42	16	2.2	1.2	ATS1344-NDΔ	21.56	17.58	15.10
<b>Without Tape</b>									
1	30	30	9	4.0	2.2	ATS1345-ND	10.67	8.12	6.96
	40	30	5	7.9	4.8	ATS1349-ND	12.85	9.88	8.28
	50	45	15	2.8	1.65	ATS1350-ND	16.90	13.06	10.95
	50	45	12	3.9	1.7	ATS1351-ND	16.97	13.74	11.52
	45	45	15	2.4	1.7	ATS1352-ND	17.18	13.91	11.66
	57.5	57.5	12.5	2.3	1.1	ATS1356-ND	22.36	18.23	15.66
2	19	19	9	5.3	3.3	ATS1346-ND†	5.85	4.28	3.49
	25	25	4	9.0	5.2	ATS1347-ND	9.02	6.77	5.64
3	15	15	9	12.0	8.0	ATS1348-ND	12.44	9.57	8.02
4	50	45	8.5	4.0	2.3	ATS1355-ND	12.96	9.97	8.36
6	50	45	16	2.1	1.3	ATS1353-ND	18.29	14.38	12.42
	58	30	9	4.8	2.4	ATS1354-ND	12.76	9.81	8.23

† Red Anodized Δ Gold Anodized

**LGA Cooling Solutions (For Freescale MPC 8641D)**

Black Anodized, Includes Mounting Hardware

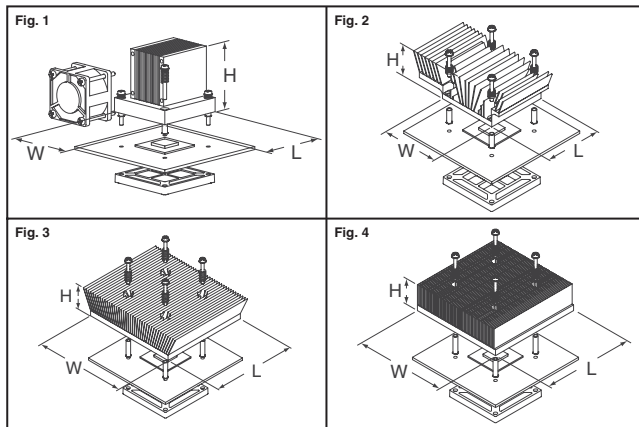


Fig.	Dimensions (mm)			Thermal Resistance		Digi-Key Part No.	Price Each		
	L	W	H	Unducted Flow @ 200 LFM (1m/sec.)	Ducted Flow @ 200 LFM (1m/sec.)		1	10	100
1	56	56	52	—	0.51	ATS1357-ND	72.63	62.25	54.99
2	56	56	31	1.01	0.6	ATS1358-ND	29.74	24.24	20.82
3	94	101	27	1.00	0.5	ATS1359-ND	60.01	50.01	45.01
4	94	94	27	1.38	0.8	ATS1360-ND	52.43	43.36	38.26

**Custom Cooling Solutions**

Using maxiGRIP™ Attachment For Flip-Chip Processors (such as Freescale MPCs) — Black Anodized, Phase Change Material

Not to be used with maxiGRIP Installation and Removal Tools

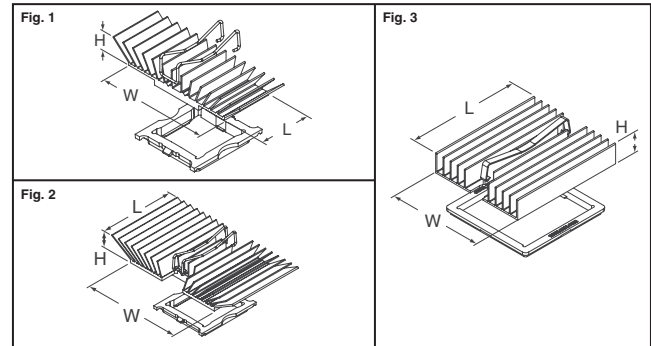
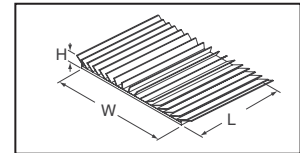


Fig.	Dimensions (mm)			Component Size (mm)	Thermal Resistance		Digi-Key Part No.	Price Each	
	L	W	H		Unducted Flow @ 200 LFM (1m/sec.)	Ducted Flow @ 200 LFM (1m/sec.)		1	10
1	21	45	9	21 x 21	6.1	4.2	ATS1365-ND	27.44	22.37
	28	45	11	21 x 21	4.5	3.0	ATS1366-ND	29.10	23.72
	25	32	13	25 x 25	6.5	3.8	ATS1367-ND	26.94	21.96
2	32	50	12	25 x 25	3.8	2.4	ATS1368-ND	18.92	14.87
	32	50	12	25 x 25	3.2	1.9	ATS1369-ND	19.13	15.04
	29	37	10	29 x 29	6.2	3.8	ATS1370-ND	20.96	16.47
	29	37	11	29 x 29	6.2	3.8	ATS1371-ND	20.10	16.39
	35	46	16.75	35 x 35	2.42	1.6	ATS1372-ND	16.85	13.03
3	35	46	16.75	35 x 35	2.42	1.6	ATS1373-ND	16.90	13.06
	62	52	13	42.5 x 42.5	3.2	1.8	ATS1374-ND†	20.96	16.47
	62	52	13	42.5 x 42.5	3.2	1.8	ATS1375-ND	20.50	16.71

† High Conductivity Thermal Tape

**Blue Ice — Low Profile**

Custom maxiFLOW™ Heat Sinks BGA Cooling Solutions with Thermal Tape — Blue Anodized



Dimensions (mm)	Thermal Resistance		Digi-Key Part No.	Price Each				
	Unducted Flow @ 200 LFM (1m/sec.)	Ducted Flow @ 200 LFM (1m/sec.)		1	10	100		
25.2	25.2	4	14.8	7.8	ATS1376-ND	10.42	7.93	6.80
37.6	37.6	4	7.8	3.8	ATS1377-ND	12.22	9.40	7.88
61	58.2	5.5	4.0	2.3	ATS1378-ND†	12.98	9.99	8.37
61	58.2	7	2.2	1.4	ATS1379-ND	13.43	10.33	8.66
61	58.2	6.1	3.6	2.2	ATS1380-NDΔ	13.21	10.16	8.52

† Gold Anodized Δ Black Anodized

**LED Heat Sinks**

For LED Lighting Modules, Black Anodized

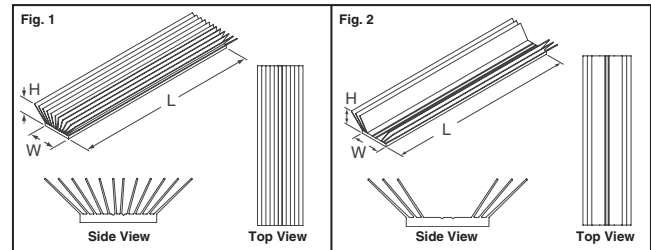


Fig.	Dimensions (mm)			Thermal Resistance		Digi-Key Part No.	Price Each		
	L	W	H	Unducted Flow @ 200 LFM (1m/sec.)	Ducted Flow @ 200 LFM (1m/sec.)		1	10	100
1	330	45	26	1.2	0.6	ATS1361-ND	29.00	23.64	20.30
	305	45	26	1.3	0.6	ATS1362-ND	27.00	22.01	18.90
2	305	45	26	0.6	0.6	ATS1363-ND	23.00	18.75	16.10
	305	45	26	0.6	0.6	ATS1364-ND†	27.00	22.01	18.90

† Thermal Tape

