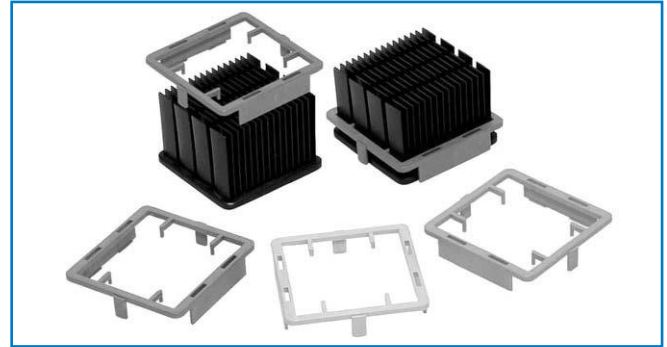
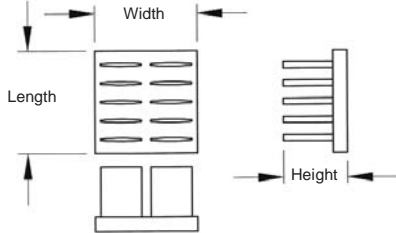


FORGED HEAT SINKS WITH PLATE FINS

DESIGN FEATURES

- Precision forging technology for high power applications
- Designed for BGA and other surface mount packages
- Various mounting methods available
- Select from multiple fin heights



PRODUCT BENEFITS

- No special tools needed for assembly
- No additional holes required on the PCB
- Special clip easily snaps on and self-aligns

SERIES APF LOW-PROFILE FORGED HEAT SINKS (ADHESIVE ATTACH ONLY)

Part Number	Fin Matrix (Rows x Columns)	Length x Width x Height (mm)	Thermal Resistance (°C/Watt)		Pressure Drop (inches of water)
			NATURAL CONVECTION	FORCED CONVECTION @ 200 LFPM	
APF19-19-06CB	12 x 2	19 x 19 x 6.3	17.0	7.1	0.033
APF19-19-10CB	12 x 2	19 x 19 x 9.5	16.0	5.5	0.033
APF19-19-13CB	12 x 2	19 x 19 x 12.7	15.6	4.4	0.033
APF30-30-06CB	19 x 3	30 x 30 x 6.3	13.9	4.4	0.039
APF30-30-10CB	19 x 3	30 x 30 x 9.5	12.9	3.3	0.039
APF30-30-13CB	19 x 3	30 x 30 x 12.7	12.5	2.7	0.039
APF40-40-06CB	26 x 4	40 x 40 x 6.3	11.1	3.2	0.043
APF40-40-10CB	26 x 4	40 x 40 x 9.5	10.1	2.5	0.043
APF40-40-13CB	26 x 4	40 x 40 x 12.7	9.6	2.0	0.043

SERIES AER FORGED HEAT SINKS

Part Number	Fin Matrix (Rows x Columns)	Length x Width x Height (mm)	Thermal Resistance (°C/Watt)		Pressure Drop (inches of water)
			NATURAL CONVECTION	FORCED CONVECTION @ 200 LFPM	
AER19-19-12CB	2 x 6	18.6 x 18.6 x 11.6	15.85	6.42	0.017
AER19-19-15CB	2 x 6	18.6 x 18.6 x 14.6	15.45	5.92	0.017
AER19-19-18CB	2 x 6	18.6 x 18.6 x 17.6	14.95	5.52	0.017
AER19-19-21CB	2 x 6	18.6 x 18.6 x 20.6	14.75	5.12	0.017
AER19-19-23CB	2 x 6	18.6 x 18.6 x 22.6	14.55	4.72	0.017
AER19-19-28CB	2 x 6	18.6 x 18.6 x 27.6	14.15	4.22	0.017
AER19-19-33CB	2 x 6	18.6 x 18.6 x 32.6	12.75	3.92	0.017
AER21-21-12CB	2 x 7	20.6 x 20.6 x 11.6	15.10	5.62	0.017
AER21-21-15CB	2 x 7	20.6 x 20.6 x 14.6	14.70	5.12	0.017
AER21-21-18CB	2 x 7	20.6 x 20.6 x 17.6	14.30	4.82	0.017
AER21-21-21CB	2 x 7	20.6 x 20.6 x 20.6	14.10	4.42	0.017
AER21-21-23CB	2 x 7	20.6 x 20.6 x 22.6	12.20	3.42	0.017
AER21-21-28CB	2 x 7	20.6 x 20.6 x 27.6	13.50	3.72	0.017
AER21-21-33CB	2 x 7	20.6 x 20.6 x 32.6	12.20	3.42	0.017
AER23-23-12CB	2 x 8	22.6 x 22.6 x 11.6	14.12	4.62	0.018
AER23-23-15CB	2 x 8	22.6 x 22.6 x 14.6	13.72	4.22	0.018
AER23-23-18CB	2 x 8	22.6 x 22.6 x 17.6	13.42	3.92	0.018
AER23-23-21CB	2 x 8	22.6 x 22.6 x 20.6	12.92	3.72	0.018

Part Number	Fin Matrix (Rows x Columns)	Length x Width x Height (mm)	Thermal Resistance (°C/Watt)		Pressure Drop (inches of water)
			NATURAL CONVECTION	FORCED CONVECTION @ 200 LFPM	
AER23-23-23CB	2 x 8	22.6 x 22.6 x 22.6	12.52	3.52	0.018
AER23-23-28CB	2 x 8	22.6 x 22.6 x 27.6	11.62	3.12	0.018
AER23-23-33CB	2 x 8	22.6 x 22.6 x 32.6	10.82	2.82	0.018
AER25-25-12CB	3 x 9	24.6 x 24.6 x 11.6	13.38	4.42	0.020
AER25-25-15CB	3 x 9	24.6 x 24.6 x 14.6	12.68	4.02	0.020
AER25-25-18CB	3 x 9	24.6 x 24.6 x 17.6	12.08	3.72	0.020
AER25-25-21CB	3 x 9	24.6 x 24.6 x 20.6	11.68	3.42	0.020
AER25-25-23CB	3 x 9	24.6 x 24.6 x 22.6	11.28	3.22	0.020
AER25-25-28CB	3 x 9	24.6 x 24.6 x 27.6	10.58	2.92	0.020
AER25-25-33CB	3 x 9	24.6 x 24.6 x 32.6	9.68	2.62	0.020
AER27-27-12CB	3 x 9	26.6 x 26.6 x 11.6	12.97	4.22	0.020
AER27-27-15CB	3 x 9	26.6 x 26.6 x 14.6	12.27	3.92	0.020
AER27-27-18CB	3 x 9	26.6 x 26.6 x 17.6	11.77	3.62	0.020
AER27-27-21CB	3 x 9	26.6 x 26.6 x 20.6	11.37	3.32	0.020
AER27-27-23CB	3 x 9	26.6 x 26.6 x 22.6	10.97	3.12	0.020
AER27-27-28CB	3 x 9	26.6 x 26.6 x 27.6	10.17	2.82	0.020
AER27-27-33CB	3 x 9	26.6 x 26.6 x 32.6	9.37	2.52	0.020
AER29-29-12CB	3 x 9	28.6 x 28.6 x 11.6	12.68	4.12	0.020
AER29-29-15CB	3 x 9	28.6 x 28.6 x 14.6	12.08	3.82	0.020
AER29-29-18CB	3 x 9	28.6 x 28.6 x 17.6	11.48	3.62	0.020
AER29-29-21CB	3 x 9	28.6 x 28.6 x 20.6	11.08	3.32	0.020
AER29-29-23CB	3 x 9	28.6 x 28.6 x 22.6	10.78	3.12	0.020
AER29-29-28CB	3 x 9	28.6 x 28.6 x 27.6	9.98	2.72	0.020
AER29-29-33CB	3 x 9	28.6 x 28.6 x 32.6	9.18	2.52	0.020
AER31-31-12CB	3 x 11	30.6 x 30.6 x 11.6	12.31	3.42	0.014
AER31-31-15CB	3 x 11	30.6 x 30.6 x 14.6	11.71	3.12	0.014
AER31-31-18CB	3 x 11	30.6 x 30.6 x 17.6	11.11	2.92	0.014
AER31-31-21CB	3 x 11	30.6 x 30.6 x 20.6	10.71	2.62	0.014
AER31-31-23CB	3 x 11	30.6 x 30.6 x 22.6	10.41	2.42	0.014
AER31-31-28CB	3 x 11	30.6 x 30.6 x 27.6	9.71	2.12	0.014
AER31-31-33CB	3 x 11	30.6 x 30.6 x 32.6	8.91	1.92	0.014
AER33-33-12CB	3 x 11	32.6 x 32.6 x 11.6	11.75	3.22	0.012
AER33-33-15CB	3 x 11	32.6 x 32.6 x 14.6	11.15	3.02	0.012
AER33-33-18CB	3 x 11	32.6 x 32.6 x 17.6	10.65	2.72	0.012
AER33-33-21CB	3 x 11	32.6 x 32.6 x 20.6	10.25	2.52	0.012
AER33-33-23CB	3 x 11	32.6 x 32.6 x 22.6	9.95	2.42	0.012
AER33-33-28CB	3 x 11	32.6 x 32.6 x 27.6	9.25	2.12	0.012
AER33-33-33CB	3 x 11	32.6 x 32.6 x 32.6	8.45	1.92	0.012
AER35-35-12CB	4 x 12	34.6 x 34.6 x 11.6	11.00	3.32	0.018
AER35-35-15CB	4 x 12	34.6 x 34.6 x 14.6	10.50	3.02	0.018
AER35-35-18CB	4 x 12	34.6 x 34.6 x 17.6	10.00	2.82	0.018
AER35-35-21CB	4 x 12	34.6 x 34.6 x 20.6	9.60	2.62	0.018
AER35-35-23CB	4 x 12	34.6 x 34.6 x 22.6	9.30	2.42	0.018
AER35-35-28CB	4 x 12	34.6 x 34.6 x 27.6	8.70	2.02	0.018
AER35-35-33CB	4 x 12	34.6 x 34.6 x 32.6	8.00	1.82	0.018
AER38-38-12CB	4 x 13	37.1 x 37.1 x 11.6	10.45	3.02	0.025
AER38-38-15CB	4 x 13	37.1 x 37.1 x 14.6	9.95	2.72	0.025
AER38-38-18CB	4 x 13	37.1 x 37.1 x 17.6	9.45	2.52	0.025
AER38-38-21CB	4 x 13	37.1 x 37.1 x 20.6	9.15	2.32	0.025
AER38-38-23CB	4 x 13	37.1 x 37.1 x 22.6	8.85	2.12	0.025
AER38-38-28CB	4 x 13	37.1 x 37.1 x 27.6	8.25	1.92	0.025
AER38-38-33CB	4 x 13	37.1 x 37.1 x 32.6	7.55	1.72	0.025
AER40-40-12CB	4 x 14	39.6 x 39.6 x 11.6	10.01	3.02	0.026

Part Number	Fin Matrix (Rows x Columns)	Length x Width x Height (mm)	Thermal Resistance (°C/Watt)		Pressure Drop (inches of water)
			NATURAL CONVECTION	FORCED CONVECTION @ 200 LFPM	
AER40-40-15CB	4 x 14	39.6 x 39.6 x 14.6	9.51	2.72	0.026
AER40-40-18CB	4 x 14	39.6 x 39.6 x 17.6	9.01	2.42	0.026
AER40-40-21CB	4 x 14	39.6 x 39.6 x 20.6	8.71	2.12	0.026
AER40-40-23CB	4 x 14	39.6 x 39.6 x 22.6	8.41	2.02	0.026
AER40-40-28CB	4 x 14	39.6 x 39.6 x 27.6	7.81	1.72	0.026
AER40-40-33CB	4 x 14	39.6 x 39.6 x 32.6	7.21	1.62	0.026
AER43-43-12CB	4 x 15	42.1 x 42.1 x 11.6	9.57	2.82	0.027
AER43-43-15CB	4 x 15	42.1 x 42.1 x 14.6	9.07	2.52	0.027
AER43-43-18CB	4 x 15	42.1 x 42.1 x 17.6	8.57	2.32	0.027
AER43-43-21CB	4 x 15	42.1 x 42.1 x 20.6	8.27	2.02	0.027
AER43-43-23CB	4 x 15	42.1 x 42.1 x 22.6	8.07	1.92	0.027
AER43-43-28CB	4 x 15	42.1 x 42.1 x 27.6	7.47	1.62	0.027
AER43-43-33CB	4 x 15	42.1 x 42.1 x 32.6	6.87	1.42	0.027
AER45-45-12CB	4 x 16	44.6 x 44.6 x 11.6	8.7	2.7	0.020
AER45-45-15CB	4 x 16	44.6 x 44.6 x 14.6	8.2	2.4	0.020
AER45-45-18CB	4 x 16	44.6 x 44.6 x 17.6	7.8	2.2	0.020
AER45-45-21CB	4 x 16	44.6 x 44.6 x 20.6	7.5	2.0	0.020
AER45-45-23CB	4 x 16	44.6 x 44.6 x 22.6	7.3	1.9	0.020
AER45-45-28CB	4 x 16	44.6 x 44.6 x 27.6	6.7	1.6	0.020
AER45-45-33CB	4 x 16	44.6 x 44.6 x 32.6	6.1	1.4	0.020
AER48-48-12CB	5 x 16	47.1 x 47.1 x 11.6	8.67	2.68	0.015
AER48-48-15CB	5 x 16	47.1 x 47.1 x 14.6	8.19	2.38	0.015
AER48-48-18CB	5 x 16	47.1 x 47.1 x 17.6	7.78	2.15	0.015
AER48-48-21CB	5 x 16	47.1 x 47.1 x 20.6	7.51	1.97	0.015
AER48-48-23CB	5 x 16	47.1 x 47.1 x 22.6	7.26	1.76	0.015
AER48-48-28CB	5 x 16	47.1 x 47.1 x 27.6	6.72	1.56	0.015
AER48-48-33CB	5 x 16	47.1 x 47.1 x 32.6	6.13	1.29	0.015
AER50-50-12CB	5 x 17	49.6 x 49.6 x 11.6	8.45	2.64	0.017
AER50-50-15CB	5 x 17	49.6 x 49.6 x 14.6	7.98	2.35	0.017
AER50-50-18CB	5 x 17	49.6 x 49.6 x 17.6	7.56	2.12	0.017
AER50-50-21CB	5 x 17	49.6 x 49.6 x 20.6	7.29	1.94	0.017
AER50-50-23CB	5 x 17	49.6 x 49.6 x 22.6	7.03	1.73	0.017
AER50-50-28CB	5 x 17	49.6 x 49.6 x 27.6	6.49	1.53	0.017
AER50-50-33CB	5 x 17	49.6 x 49.6 x 32.6	5.90	1.26	0.017
AER53-53-12CB	5 x 17	52.1 x 52.1 x 11.6	8.29	2.61	0.018
AER53-53-15CB	5 x 17	52.1 x 52.1 x 14.6	7.81	2.32	0.018
AER53-53-18CB	5 x 17	52.1 x 52.1 x 17.6	7.40	2.09	0.018
AER53-53-21CB	5 x 17	52.1 x 52.1 x 20.6	7.12	1.91	0.018
AER53-53-23CB	5 x 17	52.1 x 52.1 x 22.6	6.86	1.71	0.018
AER53-53-28CB	5 x 17	52.1 x 52.1 x 27.6	6.31	1.50	0.018
AER53-53-33CB	5 x 17	52.1 x 52.1 x 32.6	5.72	1.24	0.018
AER55-55-12CB	5 x 19	54.6 x 54.6 x 11.6	8.04	2.57	0.014
AER55-55-15CB	5 x 19	54.6 x 54.6 x 14.6	7.56	2.28	0.014
AER55-55-18CB	5 x 19	54.6 x 54.6 x 17.6	7.14	2.06	0.014
AER55-55-21CB	5 x 19	54.6 x 54.6 x 20.6	6.86	1.87	0.014
AER55-55-23CB	5 x 19	54.6 x 54.6 x 22.6	6.60	1.67	0.014
AER55-55-28CB	5 x 19	54.6 x 54.6 x 27.6	6.04	1.47	0.014
AER55-55-33CB	5 x 19	54.6 x 54.6 x 32.6	5.45	1.20	0.014

MATERIAL: 6063 Aluminum Alloy, Black Anodized