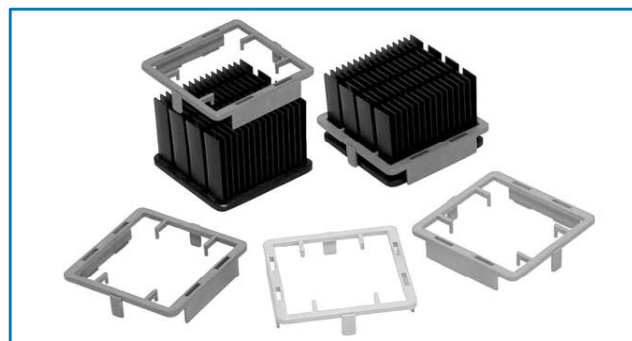
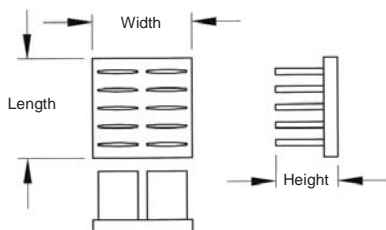


FORGED HEAT SINKS WITH PLATE FINS

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	14.5	6.4	0.017
AER19-19-15CB	2 x 6	18.6 x 18.6 x 14.6	14.1	5.9	0.017
AER19-19-18CB	2 x 6	18.6 x 18.6 x 17.6	13.6	5.5	0.017
AER19-19-21CB	2 x 6	18.6 x 18.6 x 20.6	13.4	5.1	0.017
AER19-19-23CB	2 x 6	18.6 x 18.6 x 22.6	13.2	4.7	0.017
AER19-19-28CB	2 x 6	18.6 x 18.6 x 27.6	12.8	4.2	0.017
AER19-19-33CB	2 x 6	18.6 x 18.6 x 32.6	11.4	3.9	0.017
AER21-21-12CB	2 x 7	20.6 x 20.6 x 11.6	14.0	5.6	0.017
AER21-21-15CB	2 x 7	20.6 x 20.6 x 14.6	13.6	5.1	0.017
AER21-21-18CB	2 x 7	20.6 x 20.6 x 17.6	13.2	4.8	0.017
AER21-21-21CB	2 x 7	20.6 x 20.6 x 20.6	13.0	4.4	0.017
AER21-21-23CB	2 x 7	20.6 x 20.6 x 22.6	12.8	4.2	0.017
AER21-21-28CB	2 x 7	20.6 x 20.6 x 27.6	12.4	3.7	0.017
AER21-21-33CB	2 x 7	20.6 x 20.6 x 32.6	11.1	3.4	0.017
AER23-23-12CB	2 x 8	22.6 x 22.6 x 11.6	13.2	4.6	0.018
AER23-23-15CB	2 x 8	22.6 x 22.6 x 14.6	12.8	4.2	0.018
AER23-23-18CB	2 x 8	22.6 x 22.6 x 17.6	12.5	3.9	0.018
AER23-23-21CB	2 x 8	22.6 x 22.6 x 20.6	12.0	3.7	0.018
AER23-23-23CB	2 x 8	22.6 x 22.6 x 22.6	11.6	3.5	0.018
AER23-23-28CB	2 x 8	22.6 x 22.6 x 27.6	10.7	3.1	0.018
AER23-23-33CB	2 x 8	22.6 x 22.6 x 32.6	9.9	2.8	0.018
AER25-25-12CB	3 x 9	24.6 x 24.6 x 11.6	12.6	4.4	0.020
AER25-25-15CB	3 x 9	24.6 x 24.6 x 14.6	11.9	4.0	0.020
AER25-25-18CB	3 x 9	24.6 x 24.6 x 17.6	11.3	3.7	0.020
AER25-25-21CB	3 x 9	24.6 x 24.6 x 20.6	10.9	3.4	0.020
AER25-25-23CB	3 x 9	24.6 x 24.6 x 22.6	10.5	3.2	0.020
AER25-25-28CB	3 x 9	24.6 x 24.6 x 27.6	9.8	2.9	0.020
AER25-25-33CB	3 x 9	24.6 x 24.6 x 32.6	8.9	2.6	0.020

MATERIAL: 6063 Aluminum Alloy, Black Anodized

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	
AER27-27-12CB	3 x 9	26.6 x 26.6 x 11.6	12.3	4.2	0.020
AER27-27-15CB	3 x 9	26.6 x 26.6 x 14.6	11.6	3.9	0.020
AER27-27-18CB	3 x 9	26.6 x 26.6 x 17.6	11.1	3.6	0.020
AER27-27-21CB	3 x 9	26.6 x 26.6 x 20.6	10.7	3.3	0.020
AER27-27-23CB	3 x 9	26.6 x 26.6 x 22.6	10.3	3.1	0.020
AER27-27-28CB	3 x 9	26.6 x 26.6 x 27.6	9.5	2.8	0.020
AER27-27-33CB	3 x 9	26.6 x 26.6 x 32.6	8.7	2.5	0.020
AER29-29-12CB	3 x 9	28.6 x 28.6 x 11.6	12.1	4.4	0.020
AER29-29-15CB	3 x 9	28.6 x 28.6 x 14.6	11.5	3.8	0.020
AER29-29-18CB	3 x 9	28.6 x 28.6 x 17.6	10.9	3.6	0.020
AER29-29-21CB	3 x 9	28.6 x 28.6 x 20.6	10.5	3.3	0.020
AER29-29-23CB	3 x 9	28.6 x 28.6 x 22.6	10.2	3.1	0.020
AER29-29-28CB	3 x 9	28.6 x 28.6 x 27.6	9.4	2.7	0.020
AER29-29-33CB	3 x 9	28.6 x 28.6 x 32.6	8.6	2.5	0.020
AER31-31-12CB	3 x 11	30.6 x 30.6 x 11.6	11.8	3.4	0.014
AER31-31-15CB	3 x 11	30.6 x 30.6 x 14.6	11.2	3.1	0.014
AER31-31-18CB	3 x 11	30.6 x 30.6 x 17.6	10.6	2.9	0.014
AER31-31-21CB	3 x 11	30.6 x 30.6 x 20.6	10.2	2.6	0.014
AER31-31-23CB	3 x 11	30.6 x 30.6 x 22.6	9.9	2.4	0.014
AER31-31-28CB	3 x 11	30.6 x 30.6 x 27.6	9.2	2.1	0.014
AER31-31-33CB	3 x 11	30.6 x 30.6 x 32.6	8.4	1.9	0.014
AER33-33-12CB	3 x 11	32.6 x 32.6 x 11.6	11.3	3.2	0.012
AER33-33-15CB	3 x 11	32.6 x 32.6 x 14.6	10.7	3.0	0.012
AER33-33-18CB	3 x 11	32.6 x 32.6 x 17.6	10.2	2.7	0.012
AER33-33-21CB	3 x 11	32.6 x 32.6 x 20.6	9.8	2.5	0.012
AER33-33-23CB	3 x 11	32.6 x 32.6 x 22.6	9.5	2.4	0.012
AER33-33-28CB	3 x 11	32.6 x 32.6 x 27.6	8.8	2.1	0.012
AER33-33-33CB	3 x 11	32.6 x 32.6 x 32.6	8.0	1.9	0.012
AER35-35-12CB	4 x 12	34.6 x 34.6 x 11.6	10.6	3.3	0.018
AER35-35-15CB	4 x 12	34.6 x 34.6 x 14.6	10.1	3.0	0.018
AER35-35-18CB	4 x 12	34.6 x 34.6 x 17.6	9.6	2.8	0.018
AER35-35-21CB	4 x 12	34.6 x 34.6 x 20.6	9.2	2.6	0.018
AER35-35-23CB	4 x 12	34.6 x 34.6 x 22.6	8.9	2.4	0.018
AER35-35-28CB	4 x 12	34.6 x 34.6 x 27.6	8.3	2.0	0.018
AER35-35-33CB	4 x 12	34.6 x 34.6 x 32.6	7.6	1.8	0.018
AER38-38-12CB	4 x 13	37.1 x 37.1 x 11.6	10.1	3.0	0.025
AER38-38-15CB	4 x 13	37.1 x 37.1 x 14.6	9.6	2.8	0.025
AER38-38-18CB	4 x 13	37.1 x 37.1 x 17.6	9.1	2.5	0.025
AER38-38-21CB	4 x 13	37.1 x 37.1 x 20.6	8.8	2.3	0.025
AER38-38-23CB	4 x 13	37.1 x 37.1 x 22.6	8.5	2.1	0.025
AER38-38-28CB	4 x 13	37.1 x 37.1 x 27.6	7.9	1.9	0.025
AER38-38-33CB	4 x 13	37.1 x 37.1 x 32.6	7.2	1.7	0.025
AER40-40-12CB	4 x 14	39.6 x 39.6 x 11.6	9.7	3.0	0.026
AER40-40-15CB	4 x 14	39.6 x 39.6 x 14.6	9.2	2.7	0.026
AER40-40-18CB	4 x 14	39.6 x 39.6 x 17.6	8.7	2.4	0.026
AER40-40-21CB	4 x 14	39.6 x 39.6 x 20.6	8.4	2.1	0.026
AER40-40-23CB	4 x 14	39.6 x 39.6 x 22.6	8.1	2.0	0.026
AER40-40-28CB	4 x 14	39.6 x 39.6 x 27.6	7.5	1.7	0.026
AER40-40-33CB	4 x 14	39.6 x 39.6 x 32.6	6.9	1.6	0.026
AER43-43-12CB	4 x 15	42.1 x 42.1 x 11.6	9.3	2.8	0.027
AER43-43-15CB	4 x 15	42.1 x 42.1 x 14.6	8.8	2.5	0.027
AER43-43-18CB	4 x 15	42.1 x 42.1 x 17.6	8.3	2.3	0.027
AER43-43-21CB	4 x 15	42.1 x 42.1 x 20.6	8.0	2.0	0.027
AER43-43-23CB	4 x 15	42.1 x 42.1 x 22.6	7.8	1.9	0.027
AER43-43-28CB	4 x 15	42.1 x 42.1 x 27.6	7.2	1.6	0.027
AER43-43-33CB	4 x 15	42.1 x 42.1 x 32.6	6.6	1.4	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

MATERIAL: 6063 Aluminum Alloy, Black Anodized