SERIES: HSE-BX-02 | DESCRIPTION: HEAT SINK

FEATURES

- TO-220 package
- placement pins for secure PCB attachment
- round hole for component attachment
- multiple available cut lengths

MODEL

	length (mm)	thermal resistance[1] @ 75°C ΔT, nat conv (°C/W)	@ 1 W, nat conv (°C/W)	@ 1 W, 200 LFM (°C/W)	@ 1 W, 400 LFM (°C/W)	power dissipation[1] @ 75°C ΔT, nat conv (W)
HSE-B20254-035H	25.4	12.93	14.40	3.28	2.49	5.80
HSE-B20381-035H	38.1	11.54	13.64	3.66	2.76	6.50
HSE-B20508-035H	50.8	9.62	12.98	5.17	3.28	7.80
HSE-B20508-035H-W[2]	50.8	9.62	12.98	5.17	3.28	7.80
HSE-B20635-035H	63.5	8.15	10.92	4.35	2.86	9.20
HSE-B20635-035H-W[2]	63.5	8.15	10.92	4.35	2.86	9.20

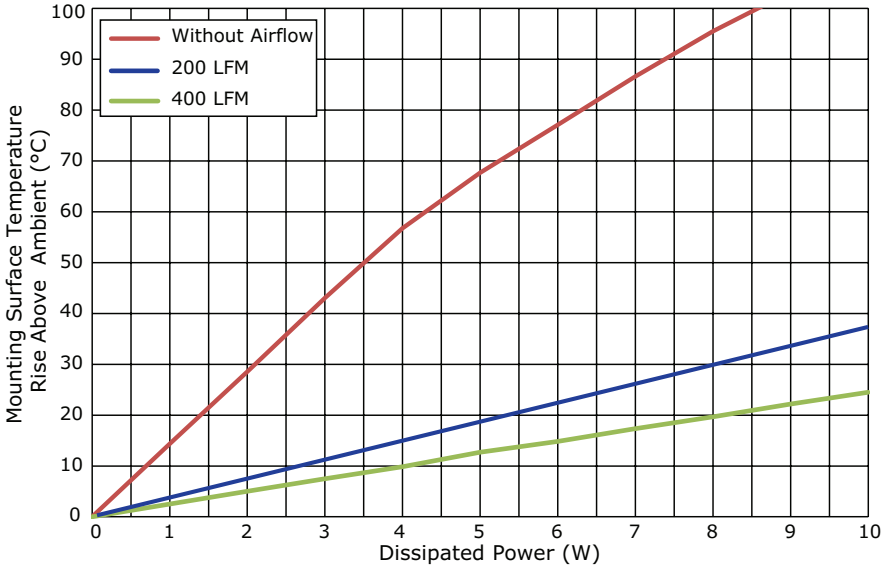
Note:
1. See performance curves for full thermal resistance details.
2. Placement pins with standoffs.
3. Custom cut to length options available. Thermal data not available on custom lengths.

PERFORMANCE CURVES

HSE-B20254-035H

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	14.40	3.28	2.49
2	28.52	6.90	5.02
3	43.03	10.51	7.48
4	56.78	13.98	9.87
5	67.70	17.81	12.71
6	77.09	21.84	14.82
7	86.63	25.55	17.33
8	95.53	29.43	19.68
9	103.32	33.25	22.19
10	112.39	37.35	24.51

Ths: "hot spot" temperature measured on the heatsink
Ta: ambient temperature

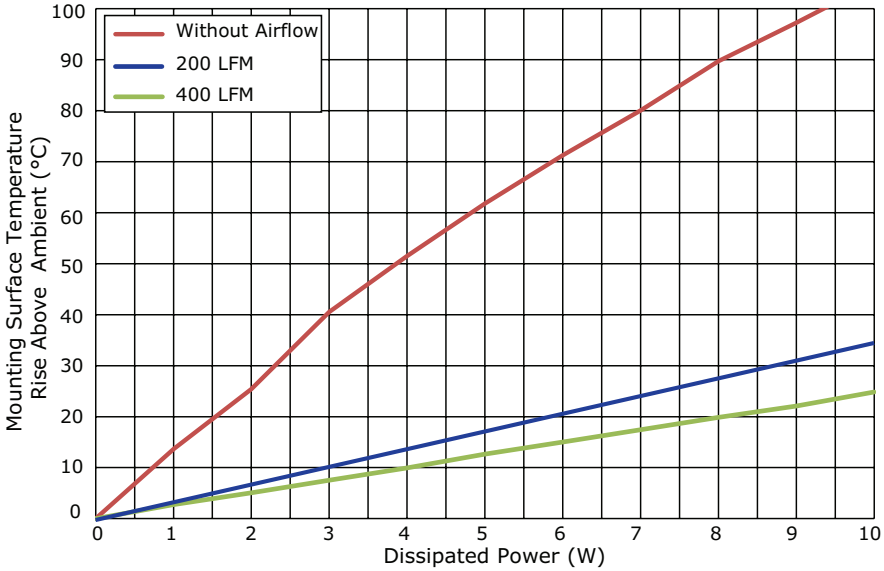


PERFORMANCE CURVES (CONTINUED)

HSE-B20381-035H

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	13.64	3.66	2.76
2	25.38	6.96	5.06
3	40.52	10.35	7.51
4	51.51	13.65	9.97
5	61.79	17.05	12.65
6	71.27	20.69	15.04
7	80.06	24.37	17.45
8	89.74	27.82	19.84
9	97.27	30.95	22.10
10	105.15	34.45	24.85

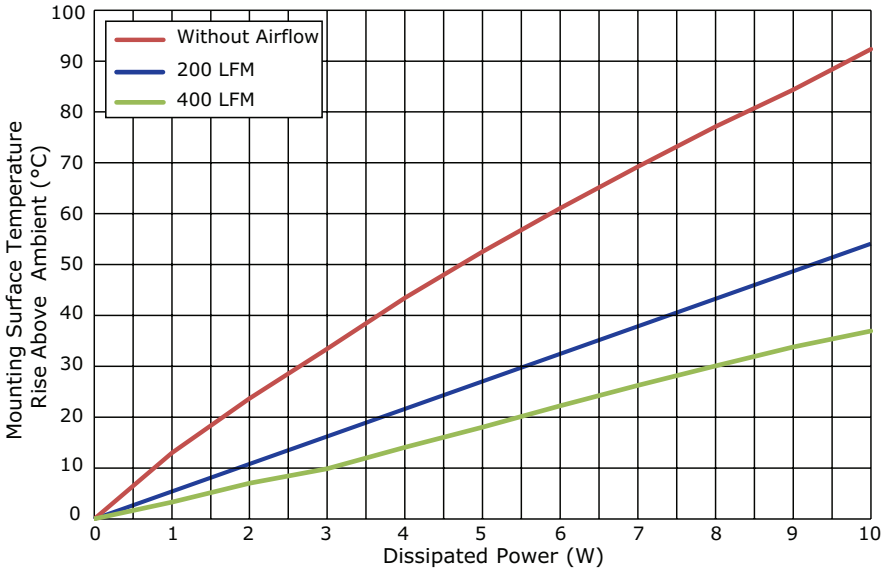
Ths: "hot spot" temperature measured on the heatsink
Ta: ambient temperature



HSE-B20508-035H(-W)

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	12.98	5.17	3.28
2	23.69	10.43	7.01
3	33.43	16.23	9.87
4	43.43	22.15	14.05
5	52.51	27.62	18.06
6	61.06	33.03	22.24
7	69.25	38.72	26.25
8	77.11	43.92	30.07
9	84.38	49.28	33.81
10	92.34	54.09	36.92

Ths: "hot spot" temperature measured on the heatsink
Ta: ambient temperature

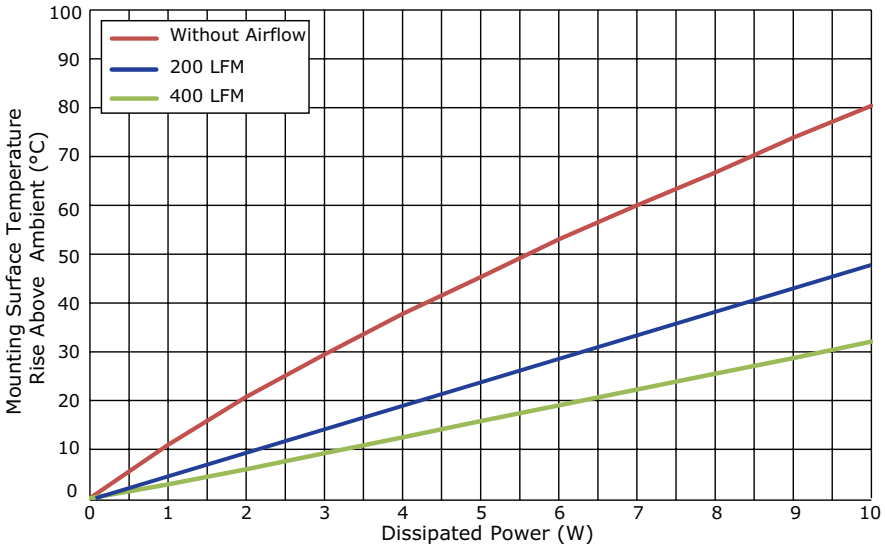


PERFORMANCE CURVES (CONTINUED)

HSE-20635-035H(-W)

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	10.92	4.35	2.86
2	20.75	9.46	5.94
3	29.43	14.60	9.20
4	37.74	19.72	12.44
5	45.32	24.84	15.80
6	53.03	29.05	19.04
7	59.98	33.85	22.26
8	66.72	38.44	25.51
9	73.88	43.38	28.69
10	80.40	47.80	32.10

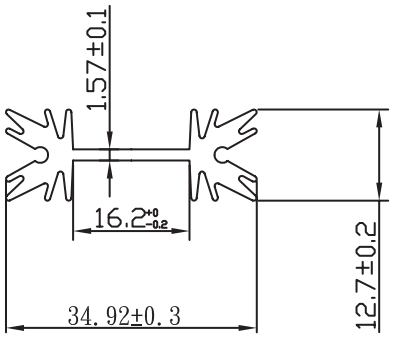
Ths: "hot spot" temperature measured on the heatsink
Ta: ambient temperature



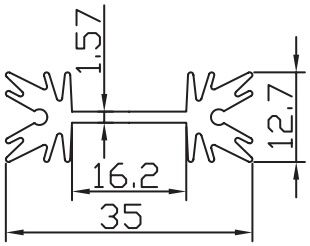
MECHANICAL DRAWING

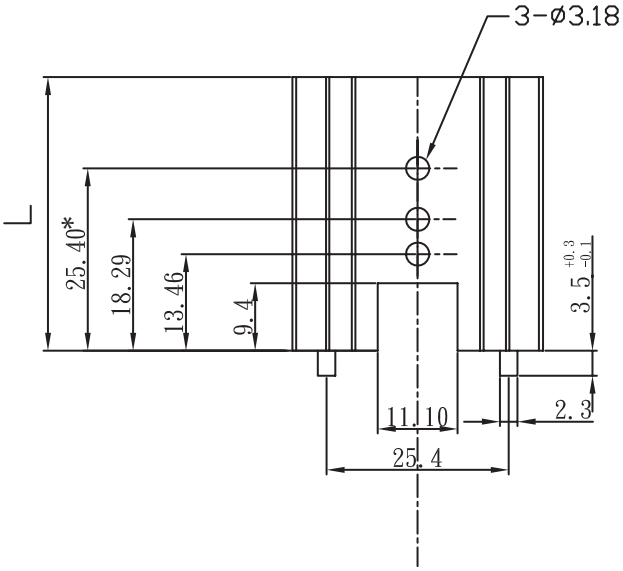
units: mm
tolerance: ±0.5 mm

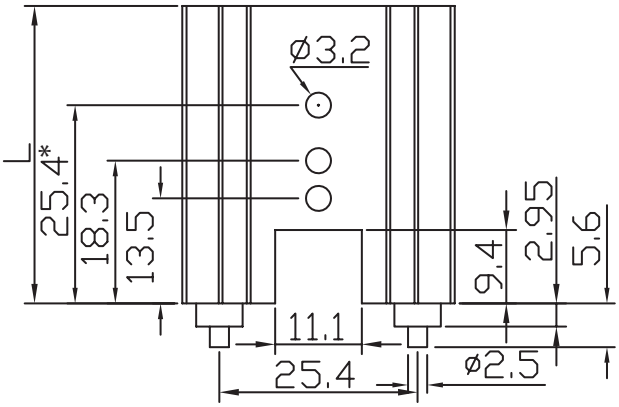
MATERIAL	AL 6063-T5
FINISH	black anodized
PIN MATERIAL	steel
PIN PLATING	tin



-W Models







MODEL NO.	LENGTH, L (mm)	WEIGHT (g)
HSE-B20254-035H*	25.4	11.33
HSE-B20381-035H	38.1	16.67
HSE-B20508-035H	50.8	22.22
HSE-B20508-035H-W	50.8	22.22
HSE-B20635-035H	63.5	27.5
HSE-B20635-035H-W	63.5	27.5

Note: * Mounting hole not present on 25.4 mm length model.

REVISION HISTORY

rev.	description	date
1.0	initial release	05/09/2017
1.01	updated datasheet	09/11/2017
1.02	brand update	02/10/2020
1.03	logo, datasheet style update	08/05/2022

The revision history provided is for informational purposes only and is believed to be accurate.

CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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