CUI Devices is now Same Sky! Learn More

SERIES: HSE-BX-045H | DESCRIPTION: HEAT SINK

FEATURES

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



RoHS

MODEL

	length (mm)	thermal resistance[1] @ 75°C ΔT, nat conv (°C/W)	thermal resistance[1] @ 1 W, nat conv (°C/W)	thermal resistance[1] @ 1 W, 200 LFM (°C/W)	thermal resistance[1] @ 1 W, 400 LFM (°C/W)	power dissipation[1] @ 75°C ΔT, nat conv (W)
HSE-B254-045H	25.4	11.72	16.12	3.86	2.52	6.40
HSE-B381-045H	38.1	7.58	8.52	2.63	1.82	9.90
HSE-B508-045H	50.8	8.06	10.52	4.38	2.89	9.30
HSE-B635-045H	63.5	6.41	7.99	3.53	2.49	11.70

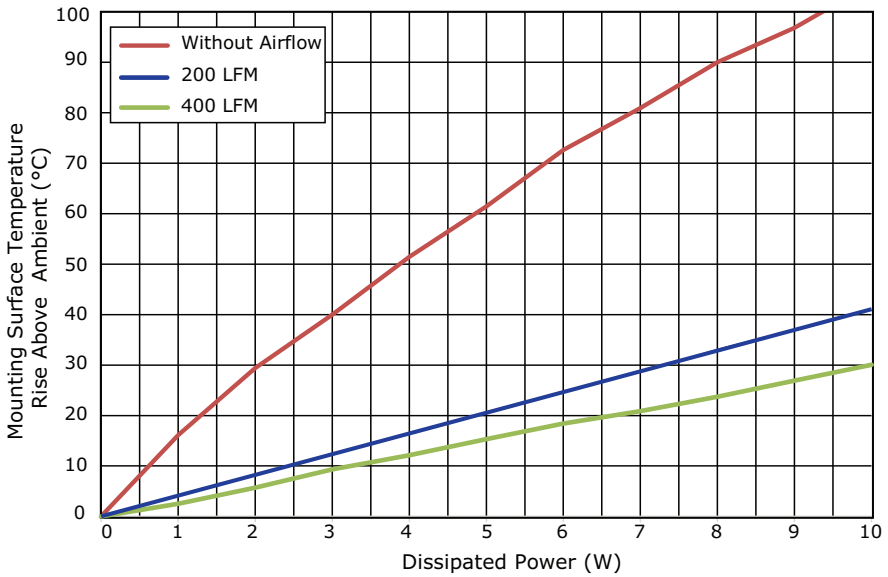
Note:
1. See performance curves for full thermal resistance details.
2. Custom cut to length options available. Thermal data not available on custom lengths.

PERFORMANCE CURVES

HSE-B254-045H

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	16.12	3.86	2.52
2	29.41	8.30	5.68
3	40.00	12.22	9.31
4	51.44	16.39	12.14
5	61.45	20.66	15.34
6	72.61	24.92	18.41
7	80.92	28.68	20.86
8	90.03	33.22	23.73
9	96.81	37.23	26.92
10	105.60	41.07	30.04

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

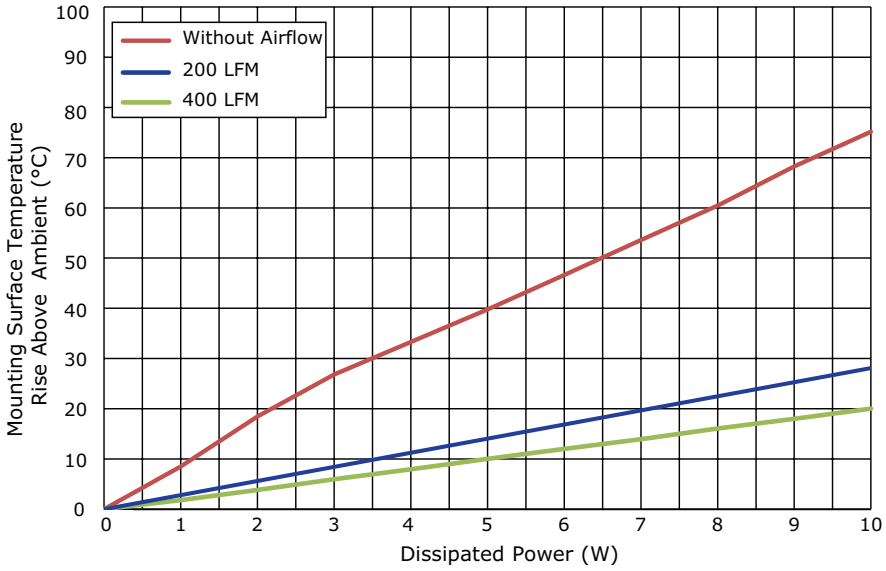


PERFORMANCE CURVES (CONTINUED)

HSE-B381-045H

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	8.52	2.63	1.82
2	18.47	5.51	3.87
3	26.83	8.39	5.96
4	33.30	11.14	7.95
5	39.77	13.92	10.01
6	46.62	16.71	12.03
7	53.59	19.45	13.95
8	60.45	22.41	16.05
9	68.22	25.10	17.98
10	75.13	28.11	20.06

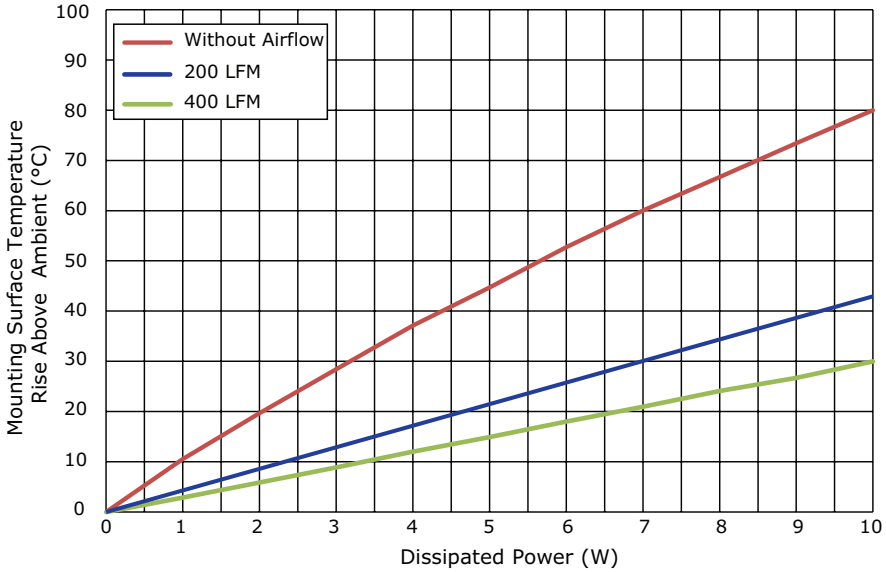
Ths: "hot spot" temperature measured on the heatsink
Ta: ambient temperature



HSE-B508-045H

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	10.52	4.38	2.89
2	19.69	8.39	5.86
3	28.40	12.74	8.86
4	37.10	16.93	12.02
5	44.72	21.55	14.92
6	52.72	25.52	18.01
7	60.03	30.14	20.94
8	66.70	34.56	24.08
9	73.41	38.67	26.72
10	79.99	42.96	29.99

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

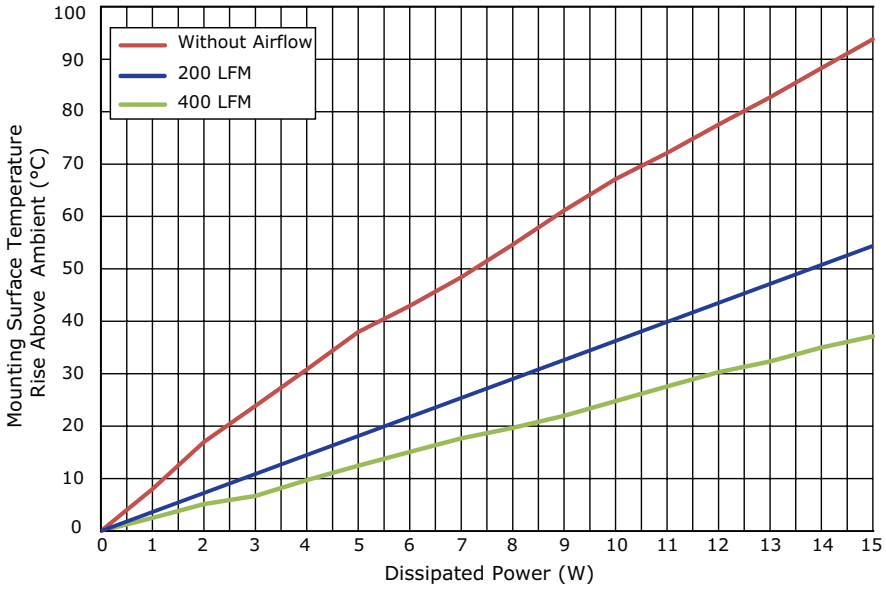


PERFORMANCE CURVES (CONTINUED)

HSE-B635-045H

	Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C)		
Power (W)	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	7.99	3.53	2.49
2	17.00	6.57	5.14
3	23.87	9.99	6.67
4	30.80	13.68	9.70
5	37.97	17.18	12.47
6	42.95	21.04	15.09
7	48.42	24.72	17.68
8	54.64	28.07	19.65
9	61.12	31.89	21.97
10	67.12	35.72	24.79
11	72.12	39.54	27.58
12	77.53	43.26	30.28
13	82.73	46.96	32.35
14	88.28	50.47	34.99
15	93.81	54.37	37.14

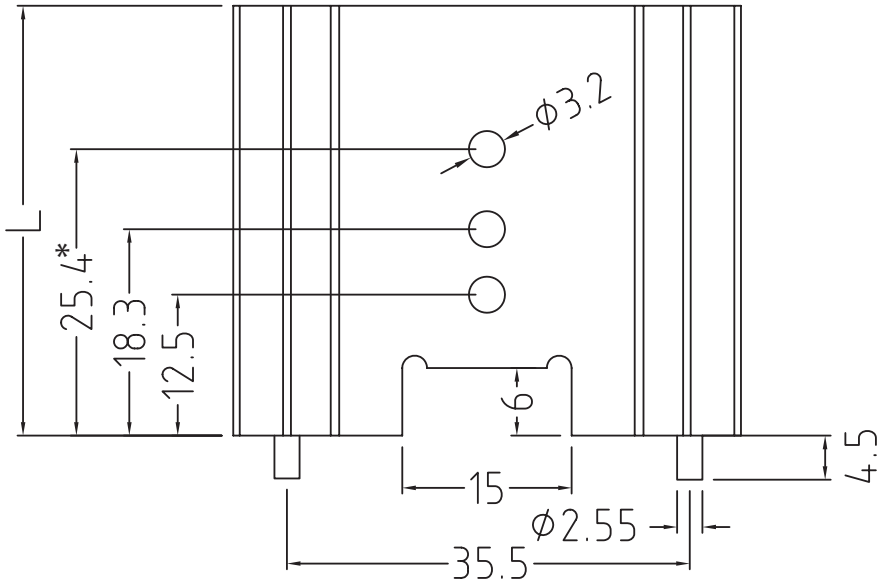
Ths: "hot spot" temperature measured on the heatsink
Ta: ambient temperature

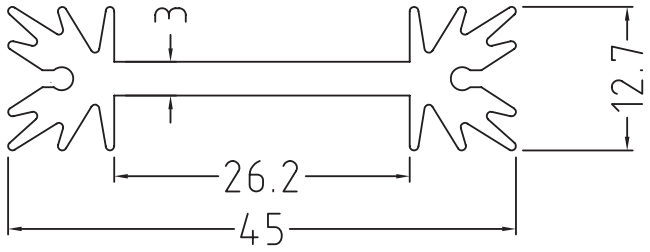


MECHANICAL DRAWING

units: mm
tolerance: ±0.5 mm

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





MODEL NO.	LENGTH, L (mm)	WEIGHT (g)
HSE-B254-045H*	25.4	13.4
HSE-B381-045H	38.1	22.0
HSE-B508-045H	50.8	31.9
HSE-B635-045H	63.5	42.2

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

REVISION HISTORY

rev.	description	date
1.0	initial release	04/25/2017
1.01	updated datasheet	09/07/2017
1.02	brand update	02/11/2020
1.03	logo, datasheet style update	08/05/2022
1.04	CUI Devices rebranded to Same Sky	09/12/2024

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

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

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.