



**SERIES:** HSE-B20X | **DESCRIPTION:** HEAT SINK

**FEATURES**

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



**MODEL**

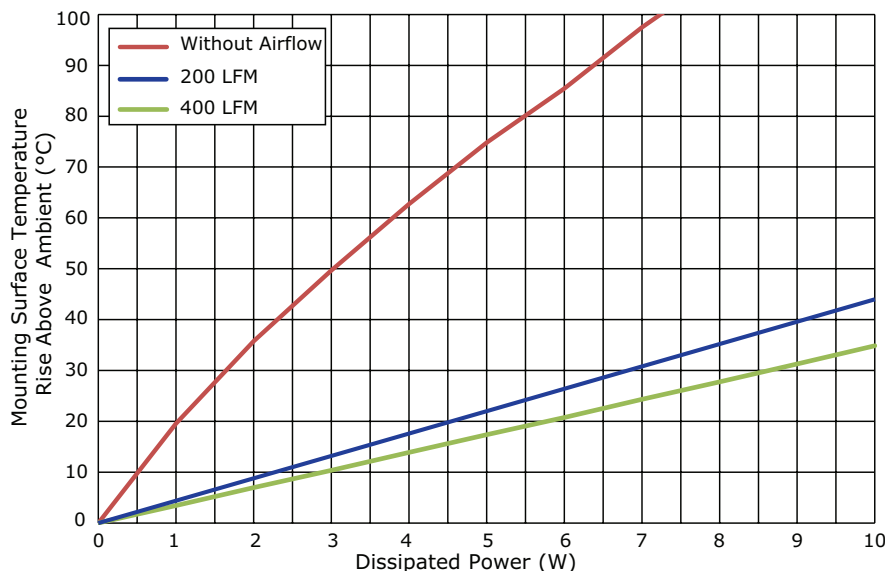
	length (mm)	thermal resistance <sup>1</sup>				power dissipation <sup>1</sup> @ 75°C ΔT, nat conv (W)
		@ 75°C ΔT, nat conv (°C/W)	@ 1 W, nat conv (°C/W)	@ 1 W, 200 LFM (°C/W)	@ 1 W, 400 LFM (°C/W)	
HSE-B20250-040H	25	15.00	19.57	4.28	3.44	5.00
HSE-B20270-040H	27	12.50	17.29	3.64	2.82	6.00
HSE-B20380-040H	38	10.14	13.19	3.94	2.44	7.40
HSE-B20500-040H	50	8.43	11.17	4.85	3.17	8.90
HSE-B20630-040H	63	7.81	11.54	3.73	2.31	9.60

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-B20250-040H**

Power (W)	Heatsink Temperature Rise Above Ambient (ΔT = T <sub>hs</sub> - T <sub>a</sub> ) (°C)		
	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	19.57	4.28	3.44
2	35.77	8.76	6.98
3	49.68	13.06	10.36
4	62.71	17.44	13.88
5	74.79	21.93	17.35
6	85.46	26.39	20.74
7	97.48	30.77	24.33
8	108.09	35.20	27.77
9	117.16	39.64	31.31
10	127.50	43.98	34.86



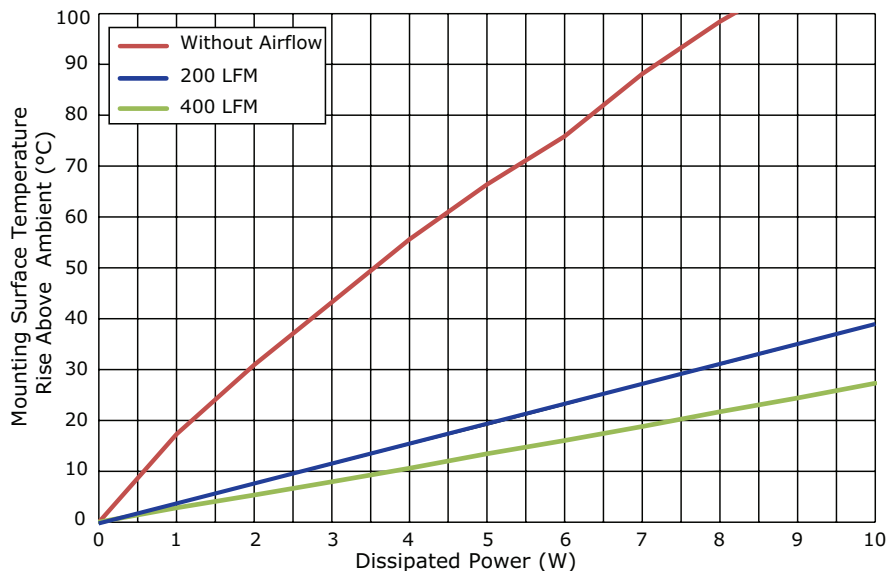
T<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature

## PERFORMANCE CURVES (CONTINUED)

### HSE-B20270-040H

Power (W)	Heatsink Temperature Rise Above Ambient ( $\Delta T = T_{hs} - T_a$ ) (°C)		
	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	17.29	3.64	2.82
2	30.91	7.46	5.30
3	43.23	11.24	7.93
4	55.60	15.12	10.61
5	66.37	18.95	13.43
6	75.86	22.92	16.06
7	88.12	27.03	18.81
8	98.44	30.78	21.69
9	107.17	34.75	24.44
10	114.29	38.96	27.31

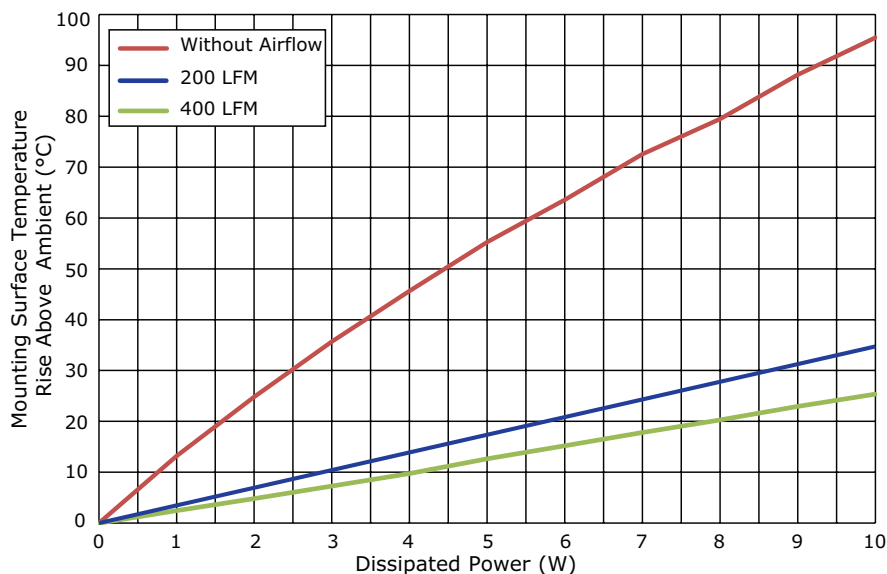
$T_{hs}$ : "hot spot" temperature measured on the heatsink  
 $T_a$ : ambient temperature



### HSE-B20380-040H

Power (W)	Heatsink Temperature Rise Above Ambient ( $\Delta T = T_{hs} - T_a$ ) (°C)		
	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	13.19	3.94	2.44
2	24.78	7.39	4.83
3	35.70	10.40	7.28
4	45.65	13.83	9.74
5	55.23	17.18	12.65
6	63.54	20.84	15.21
7	72.54	24.44	17.81
8	79.48	27.50	20.30
9	88.15	31.14	22.93
10	95.46	34.74	25.35

$T_{hs}$ : "hot spot" temperature measured on the heatsink  
 $T_a$ : ambient temperature

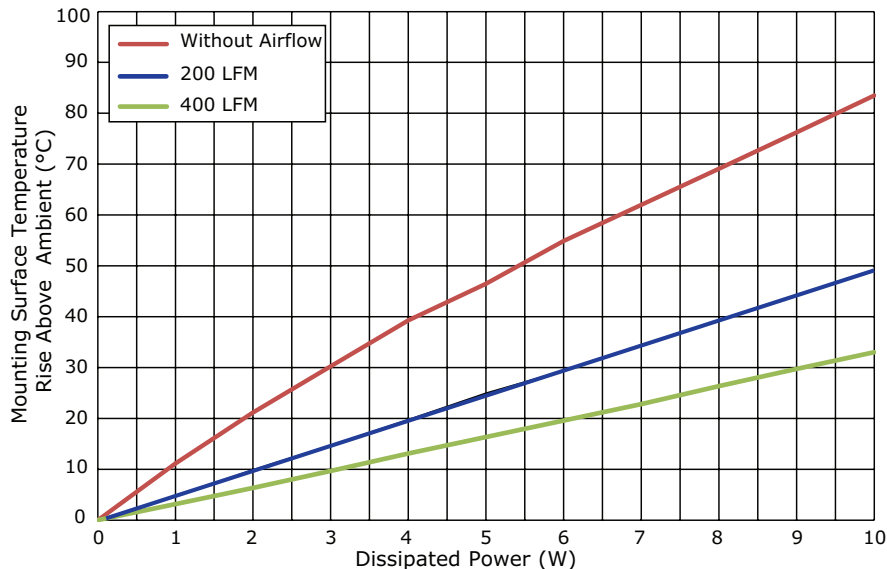


## PERFORMANCE CURVES (CONTINUED)

### HSE-B20500-040H

Power (W)	Heatsink Temperature Rise Above Ambient ( $\Delta T = T_{hs} - T_a$ ) (°C)		
	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	11.17	4.85	3.17
2	21.14	10.05	6.33
3	30.25	14.84	9.65
4	39.30	19.90	13.13
5	46.48	25.12	16.36
6	54.89	29.54	19.59
7	62.00	34.62	22.84
8	69.07	39.48	26.34
9	76.23	44.22	29.71
10	83.48	49.11	33.00

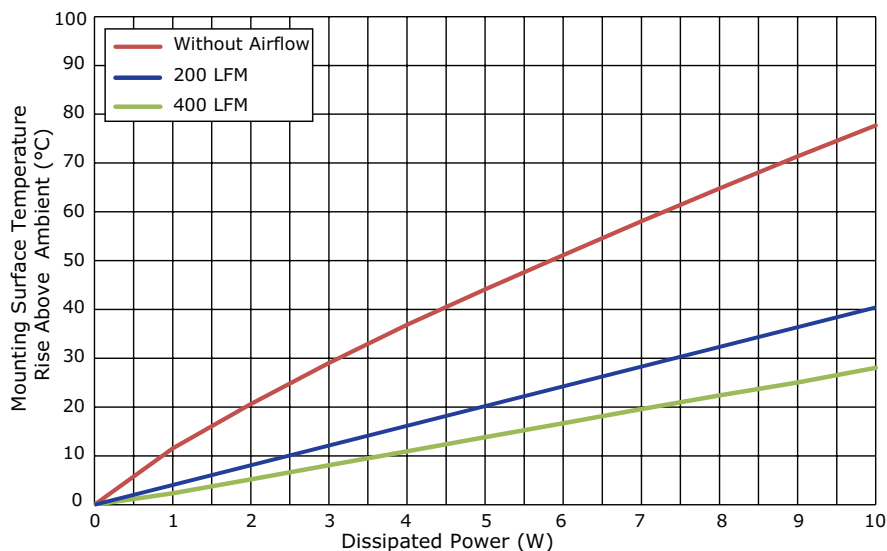
$T_{hs}$ : "hot spot" temperature measured on the heatsink  
 $T_a$ : ambient temperature



### HSE-B20630-040H

Power (W)	Heatsink Temperature Rise Above Ambient ( $\Delta T = T_{hs} - T_a$ ) (°C)		
	Natural Conv.	200 LFM	400 LFM
0	0	0	0
1	11.54	3.73	2.31
2	20.64	7.85	5.18
3	29.05	11.97	8.07
4	36.88	15.99	10.94
5	44.10	20.26	13.85
6	51.10	24.12	16.67
7	58.10	28.27	19.57
8	64.79	32.25	22.39
9	71.36	36.28	25.03
10	77.70	40.39	28.03

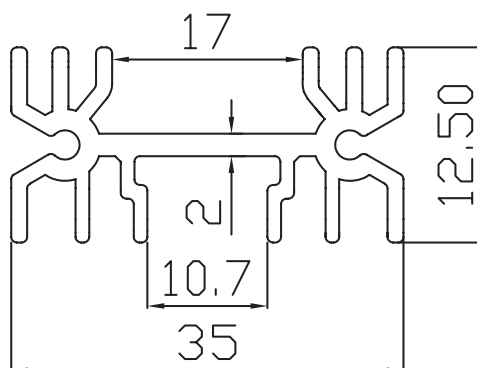
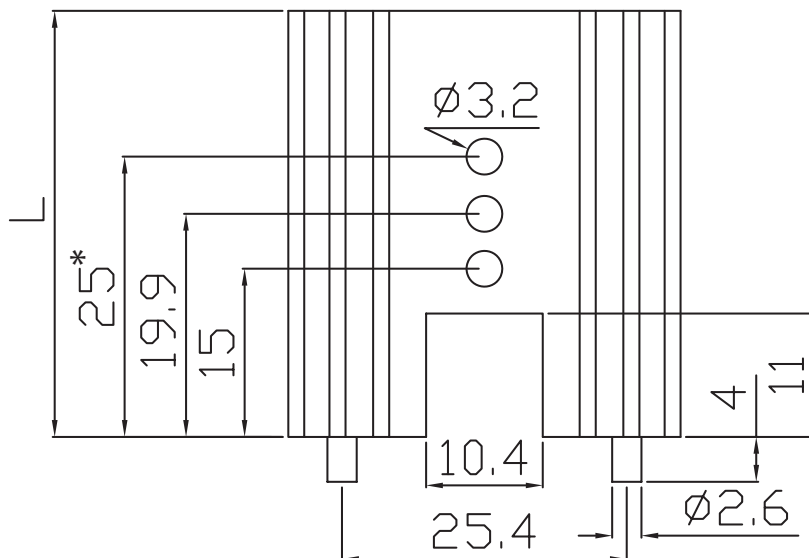
$T_{hs}$ : "hot spot" temperature measured on the heatsink  
 $T_a$ : ambient temperature



## 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-B20250-040H*	25	12
HSE-B20270-040H*	27	13
HSE-B20380-040H	38	15
HSE-B20500-040H	50	22
HSE-B20630-040H	63	24

Note: \* Mounting hole not present on 25 & 27 mm length models.

## REVISION HISTORY

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rev.	description	date
1.0	initial release	05/11/2017
1.01	updated datasheet	09/07/2017

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

**CUI INC**<sup>®</sup>

**Headquarters**  
20050 SW 112th Ave.  
Tualatin, OR 97062  
**800.275.4899**

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

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