

**MODEL:** HSE-B20X-01 | **DESCRIPTION:** HEAT SINK

**FEATURES**

- TO-220 package
- placement pins for secure PCB attachment
- slide in style
- multiple available cut lengths



**MODEL**

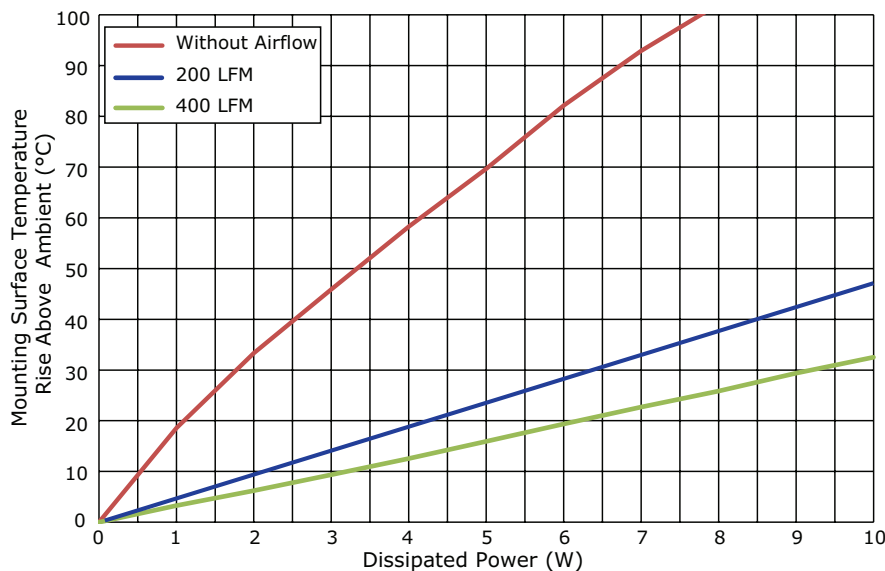
	length [mm]	thermal resistance <sup>1</sup>				power dissipation <sup>1</sup> @ 75°C ΔT, nat conv [W]
		@ 75°C ΔT, nat conv [°C/W]	@ 1 W, nat conv [°C/W]	@ 1 W, 200 LFM [°C/W]	@ 1 W, 400 LFM [°C/W]	
HSE-B20250-040H-01	25	13.64	18.58	4.44	3.30	5.50
HSE-B20380-040H-01	38	10.27	13.31	5.77	3.68	7.30
HSE-B20500-040H-01	50	8.43	11.67	2.85	1.91	8.90
HSE-B20630-040H-01	63	8.24	11.01	4.46	2.97	9.10

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-01**

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	18.58	4.44	3.30
2	33.32	9.59	6.21
3	45.87	14.21	9.38
4	58.26	18.79	12.55
5	69.68	23.71	15.95
6	82.14	28.49	19.39
7	92.93	32.90	22.71
8	102.15	37.44	25.85
9	110.43	42.50	29.39
10	117.47	47.13	32.50



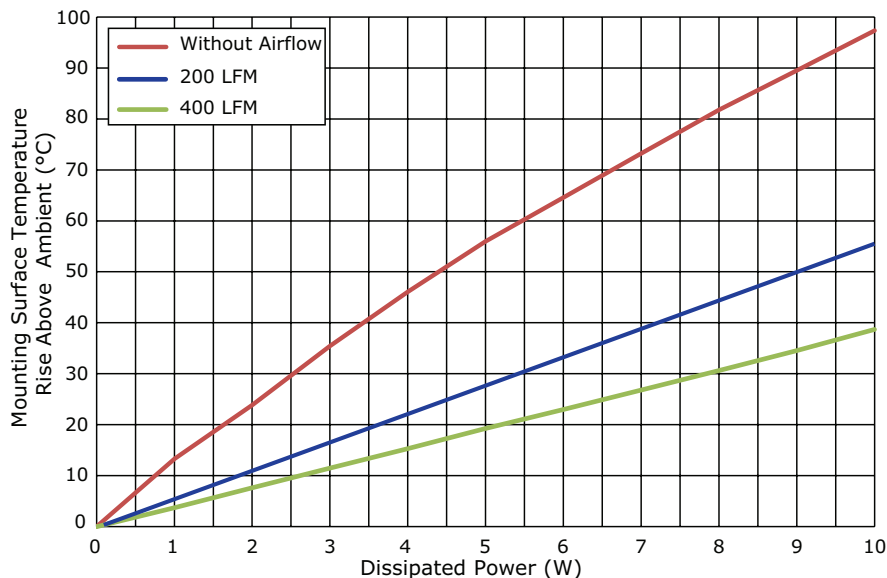
T<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature

## PERFORMANCE CURVES (CONTINUED)

### HSE-B20380-040H-01

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	13.31	5.77	3.68
2	23.81	11.53	7.60
3	35.45	17.15	11.49
4	46.08	22.72	15.29
5	55.96	28.33	19.24
6	64.57	33.55	22.98
7	73.20	38.93	26.79
8	81.80	44.23	30.63
9	89.50	50.00	34.54
10	97.33	55.53	38.67

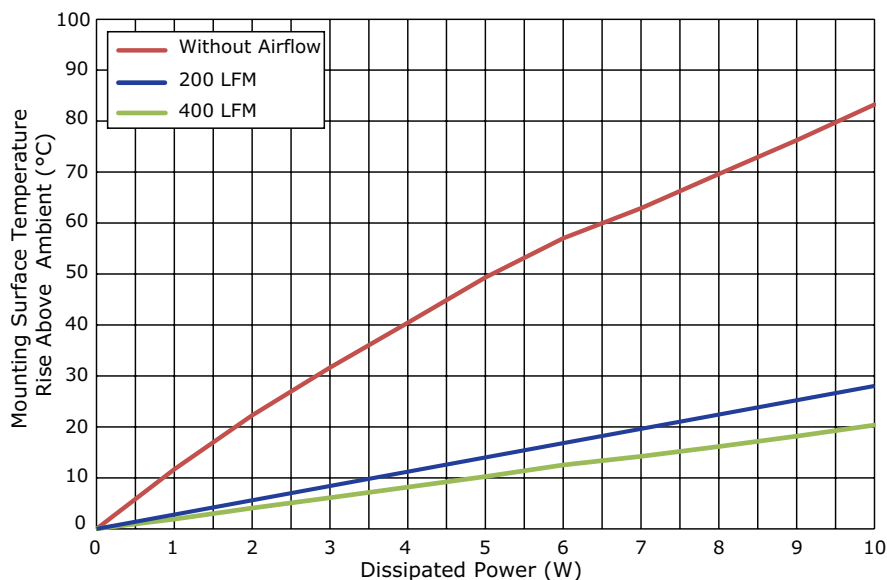
T<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
 T<sub>a</sub>: ambient temperature



### HSE-B20500-040H-01

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	11.67	2.85	1.91
2	22.26	5.68	4.07
3	31.61	8.58	6.11
4	40.44	11.07	8.18
5	49.31	14.07	10.26
6	57.03	16.67	12.51
7	62.88	19.49	14.23
8	69.61	22.33	16.13
9	76.25	25.14	18.16
10	83.27	28.02	20.35

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

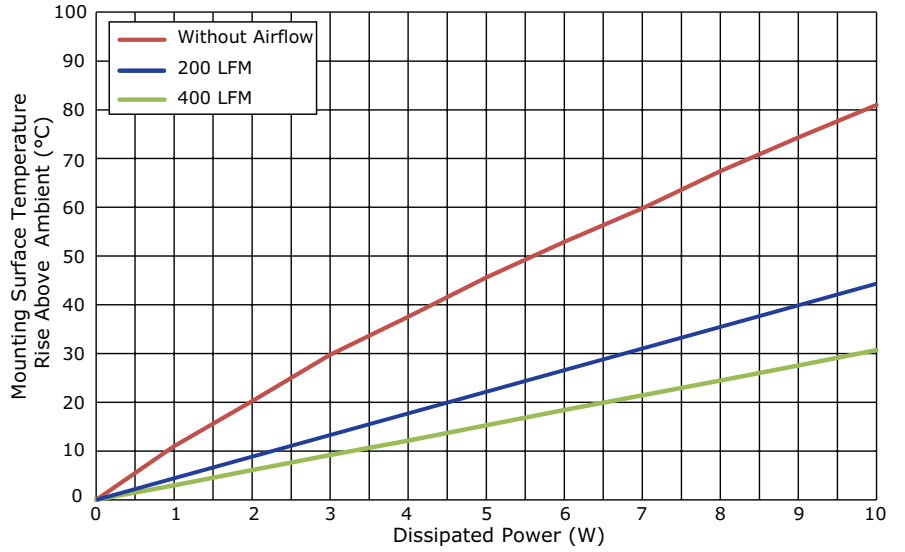


## PERFORMANCE CURVES (CONTINUED)

### HSE-B20630-040H-01

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	11.01	4.46	2.97
2	20.23	8.99	6.12
3	29.76	13.50	9.20
4	37.54	18.04	12.16
5	45.62	22.74	15.31
6	52.89	27.33	18.44
7	59.78	31.53	21.42
8	67.39	35.77	24.49
9	74.31	40.18	27.56
10	80.97	44.35	30.69

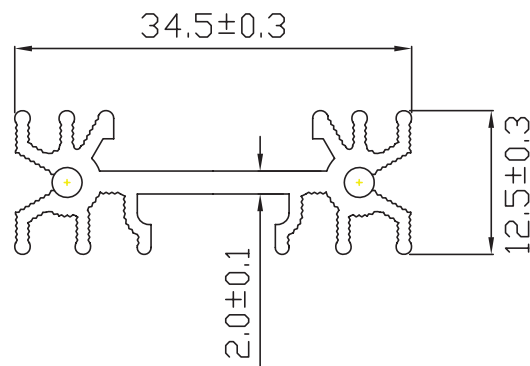
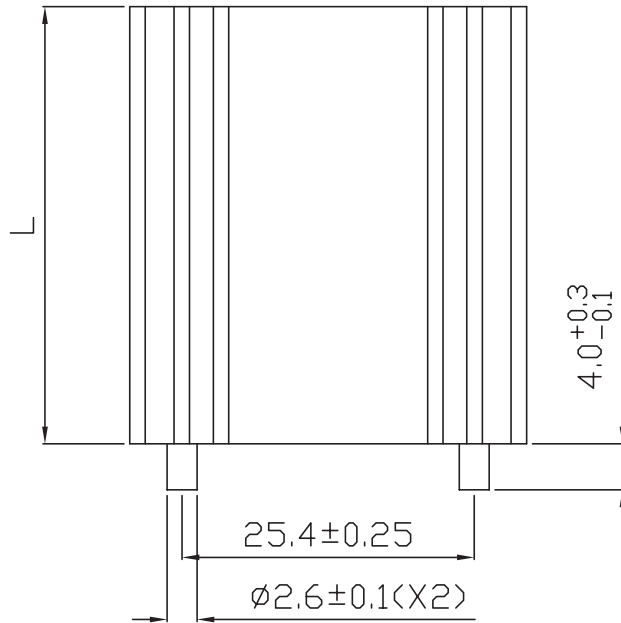
$T_{hs}$ : "hot spot" temperature measured on the heatsink  
 $T_a$ : ambient temperature



## MECHANICAL DRAWING

units: mm  
tolerance:  $\pm 0.5$  mm

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



MODEL NO.	LENGTH, L [mm]	WEIGHT [g]
HSE-B20250-040H-01	25	11.33
HSE-B20380-040H-01	38	16.67
HSE-B20500-040H-01	50	19.45
HSE-B20630-040H-01	63	24.16

## REVISION HISTORY

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

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



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