# **CUI** DEVICES

## 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





thermal resistance <sup>1</sup>				power dissipation <sup>1</sup>	
length (mm)	@ 75°C ΔT, nat conv (°C/W)	<pre>@ 1 W, nat conv (°C/W)</pre>	@ 1 W, 200 LFM (°C/W)	@ 1 W, 400 LFM (°C/W)	<pre>@ 75°C ∆T, nat conv (W)</pre>
25.4	12.93	14.40	3.28	2.49	5.80
38.1	11.54	13.64	3.66	2.76	6.50
50.8	9.62	12.98	5.17	3.28	7.80
50.8	9.62	12.98	5.17	3.28	7.80
63.5	8.15	10.92	4.35	2.86	9.20
63.5	8.15	10.92	4.35	2.86	9.20
	(mm) 25.4 38.1 50.8 50.8 63.5	nat conv (mm)         nat conv (°C/W)           25.4         12.93           38.1         11.54           50.8         9.62           50.8         9.62           63.5         8.15	nat conv (°C/W)nat conv (°C/W)25.412.9314.4038.111.5413.6450.89.6212.9850.89.6212.9863.58.1510.92	nat conv (mm)nat conv (°C/W)200 LFM (°C/W)25.412.9314.403.2838.111.5413.643.6650.89.6212.985.1750.89.6212.985.1763.58.1510.924.35	nat conv (mm)nat conv (°C/W)200 LFM (°C/W)400 LFM (°C/W)25.412.9314.403.282.4938.111.5413.643.662.7650.89.6212.985.173.2850.89.6212.985.173.2863.58.1510.924.352.86

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

## **PERFORMANCE CURVES**

#### HSE-B20254-035H

	Heatsink Temperature Rise Above Ambient ( $\Delta T$ = 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	

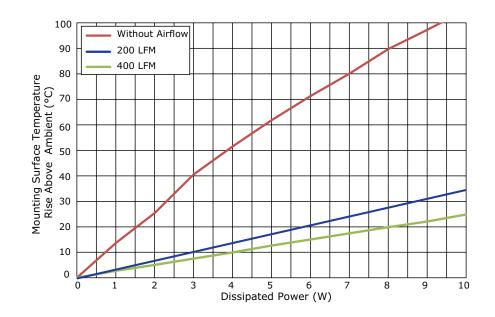
100 Without Airflow 90 200 LFM 400 LFM Mounting Surface Temperature Rise Above Ambient (°C) 80 70 60 50 40 30 20 10 0 n 3 4 5 6 7 8 9 10 2 Dissipated Power (W)

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

## **PERFORMANCE CURVES (CONTINUED)**

#### HSE-B20381-035H

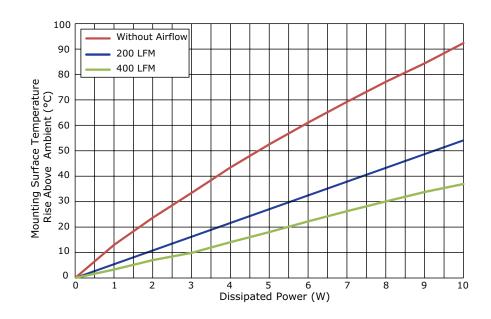
	Heatsink Temperature Rise Above Ambient ( $\Delta T$ = Ths - Ta) (°C)			
Power (W)	Natural Conv.	200 LFM	400 LFM	
0	0	0	0	
1	13.64	3.66	2.76	
2	25.38	6.96	5.06	
3	40.52	10.35	7.51	
4	51.51	13.65	9.97	
5	61.79	17.05	12.65	
6	71.27	20.69	15.04	
7	80.06	24.37	17.45	
8	89.74	27.82	19.84	
9	97.27	30.95	22.10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



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

Heatsink Temperature Rise Above Ambient ( $\Delta T$ = Ths - Ta) (°C)		
Natural Conv.	200 LFM	400 LFM
0	0	0
12.98	5.17	3.28
23.69	10.43	7.01
33.43	16.23	9.87
43.43	22.15	14.05
52.51	27.62	18.06
61.06	33.03	22.24
69.25	38.72	26.25
77.11	43.92	30.07
84.38	49.28	33.81
92.34	54.09	36.92
	Ambient Natural Conv. 0 12.98 23.69 33.43 43.43 52.51 61.06 69.25 77.11 84.38	Ambient (ΔT = Ths -Natural Conv.200 LFM0012.985.1723.6910.4333.4316.2343.4322.1552.5127.6261.0633.0369.2538.7277.1143.9284.3849.28

#### HSE-B20508-035H(-W)



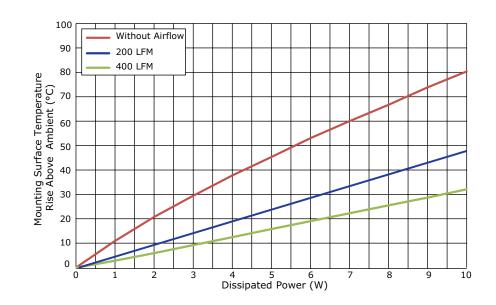
Ths: "hot spot" temperature measured on the heatsink Ta: ambient temperature

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## PERFORMANCE CURVES (CONTINUED)

#### HSE-20635-035H(-W)

	Heatsink Temperature Rise Above Ambient ( $\Delta T$ = 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

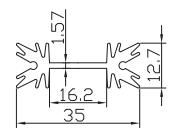
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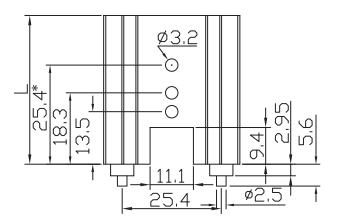
### **MECHANICAL DRAWING**

units: mm tolerance: ±0.5 mm

AL 6063-T5
black anodized
steel
tin

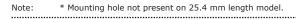


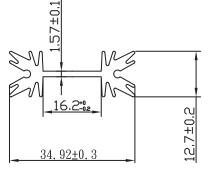


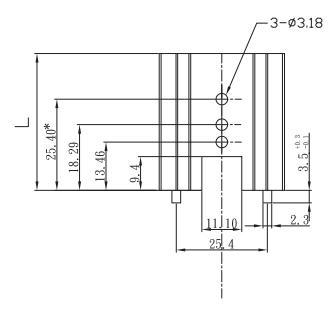


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MODEL NO.	LENGTH, L (mm)	WEIGHT (g)
HSE-B20254-035H*	25.4	11.33
HSE-B20381-035H	38.1	16.67
HSE-B20508-035H	50.8	22.22
HSE-B20508-035H-W	50.8	22.22
HSE-B20635-035H	63.5	27.5
HSE-B20635-035H-W	63.5	27.5







#### **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

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

**CUI** DEVICES

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