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# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









**date** 09/11/2017

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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		thermal resistance <sup>1</sup>				power dissipation <sup>1</sup>
	length	@ 75°C ΔT, nat conv	@ 1 W, nat conv	@ 1 W, 200 LFM	@ 1 W, 400 LFM	@ 75°C ∆T, nat conv
	(mm)	(°C/W)	(°C/W)	(°C/W)	(°C/W)	(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 <sup>2</sup>	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 <sup>2</sup>	63.5	8.15	10.92	4.35	2.86	9.20

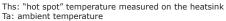
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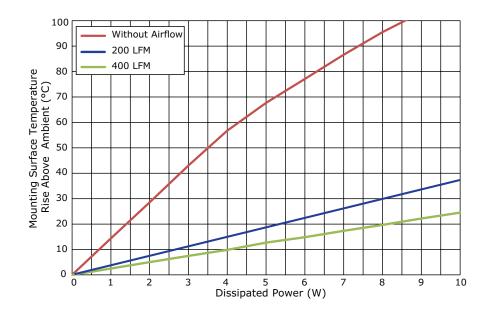
- 1. See performance curves for full thermal resistance details.
- 2. Placement pins with standoffs.
- 3. Custom cut to length options available. Thermal data not available on custom lengths.

### **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	

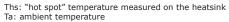


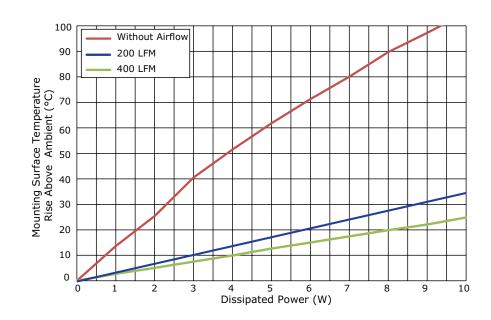


# **PERFORMANCE CURVES (CONTINUED)**

#### 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	



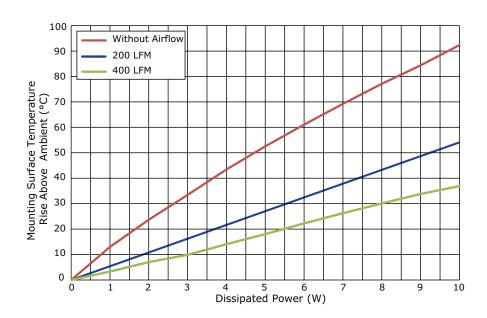


### HSE-B20508-035H(-W)

	Heatsink Temperature Rise Above Ambient ( $\Delta T = Ths - Ta$ ) (°C)			
Power (W)	Natural Conv.	200 LFM	400 LFM	
0	0	0	0	
1	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

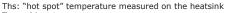
Ta: ambient temperature



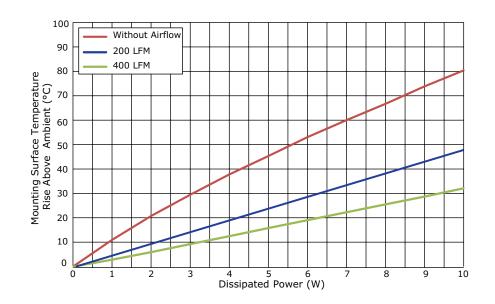
# **PERFORMANCE CURVES (CONTINUED)**

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

	Heatsink Temperature Rise Above Ambient ( $\Delta T = Ths - Ta$ ) (°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	



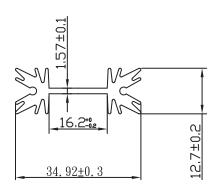
Ta: ambient temperature



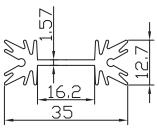
### **MECHANICAL DRAWING**

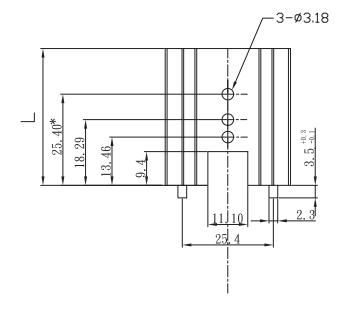
units: mm tolerance: ±0.5 mm

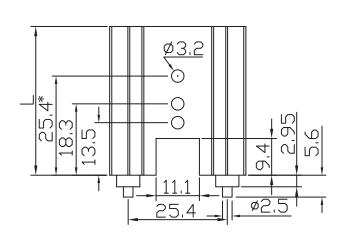
MATERIAL	AL 6063-T5
FINISH	black anodized
PIN MATERIAL	steel
PIN PLATING	tin











MODEL NO.	LENGTH, L (mm)	WEIGHT (g)
HSE-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

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



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

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

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