Additional Resources: Product Page



date 09/12/2024

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## SERIES: HSE-BX-040H | 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<br>dissipation <sup>1</sup> |
|-----------------|--------|--------------------------------------|--------------------|-------------------|-------------------|-----------------------------------|
|                 | length | <b>@ 75°C ∆T, nat</b><br>conv (°C/W) | @ 1 W,<br>nat conv | @ 1 W,<br>200 LFM | @ 1 W,<br>400 LFM | @ 75°C ∆T, nat<br>conv            |
|                 | (mm)   |                                      | (°C/W)             | (°C/W)            | (°C/W)            | (W)                               |
| HSE-B20254-040H | 25.4   | 13.16                                | 16.13              | 7.74              | 5.77              | 5.70                              |
| HSE-B20381-040H | 38.1   | 11.54                                | 12.28              | 3.62              | 2.88              | 6.50                              |

Note:

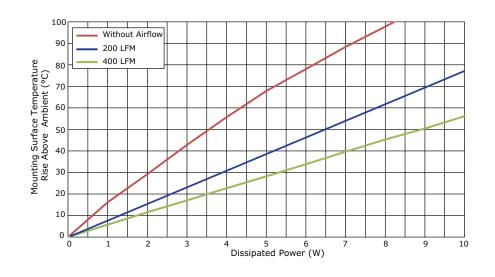
### PERFORMANCE CURVES

#### HSE-B20254-040H

| Heatsink Temperature Rise Above<br>Ambient (ΔT = Ths - Ta) (°C) |  |   |  |
|---|--|---|--|
| Natural<br>Conv.  | 200 LFM  | 400 LFM   |  |
| 0   | 0  | 0   |  |
| 16.13   | 7.74   | 5.77  |  |
| 29.25   | 15.62  | 11.53   |  |
| 42.80   | 23.81  | 17.04   |  |
| 55.72   | 31.68  | 22.66   |  |
| 67.84   | 39.53  | 28.21   |  |
| 78.06   | 47.35  | 33.83   |  |
| 88.34   | 54.42  | 39.65   |  |
| 97.77   | 62.21  | 45.28   |  |
| 107.55  | 69.81  | 50.42   |  |
| 117.33  | 77.16  | 56.11   |  |
|   | Ambiel Natural Conv.  0 16.13 29.25 42.80 55.72 67.84 78.06 88.34 97.77 107.55 | Ambient (\(\Delta\T\) = Ths - \(\Delta\T\)  Natural Conv. 200 LFM  0 0  16.13 7.74  29.25 15.62  42.80 23.81  55.72 31.68  67.84 39.53  78.06 47.35  88.34 54.42  97.77 62.21  107.55 69.81 |  |



Ta: ambient temperature



<sup>1.</sup> See performance curves for full thermal resistance details.

<sup>2.</sup> Custom cut to length options available. Thermal data not available on custom lengths.

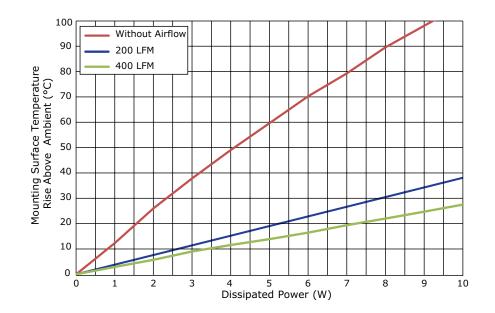
## PERFORMANCE CURVES (CONTINUED)

#### HSE-B20381-040H

|              | Heatsink Temperature Rise Above<br>Ambient (ΔT = Ths - Ta) (°C) |         |         |  |
|--------------|---|---------|---------|--|
| Power<br>(W) | Natural<br>Conv.  | 200 LFM | 400 LFM |  |
| 0            | 0   | 0       | 0       |  |
| 1            | 12.28   | 3.62    | 2.88    |  |
| 2            | 25.96   | 7.21    | 5.70    |  |
| 3            | 37.80   | 11.15   | 8.98    |  |
| 4            | 49.04   | 14.86   | 11.55   |  |
| 5            | 59.64   | 18.82   | 13.90   |  |
| 6            | 70.27   | 22.54   | 16.43   |  |
| 7            | 79.30   | 26.31   | 19.41   |  |
| 8            | 89.57   | 30.28   | 21.97   |  |
| 9            | 98.10   | 34.00   | 24.72   |  |
| 10           | 106.51  | 38.10   | 27.50   |  |





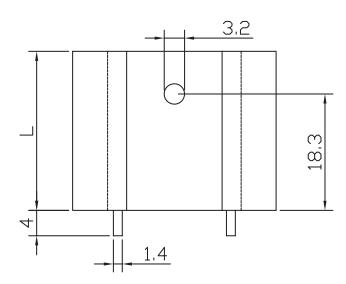


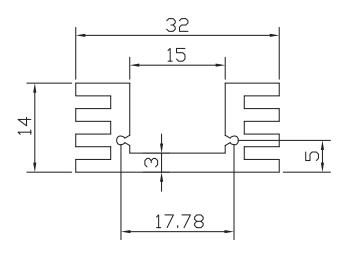
## **MECHANICAL DRAWING**

units: mm

tolerance: ±0.5 mm

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





| MODEL NO.       | LENGTH, L<br>(mm) | WEIGHT<br>(g) |
|-----------------|-------------------|---------------|
| HSE-B20254-040H | 25.4              | 15.5          |
| HSE-B20381-040H | 38.1              | 23.19         |

#### **REVISION HISTORY**

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 05/04/2017 |
| 1.01 | brand update                      | 02/11/2020 |
| 1.02 | logo, datasheet style update      | 08/05/2022 |
| 1.03 | 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.

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## **CUI Devices**:

HSE-B20254-040H HSE-B20381-040H