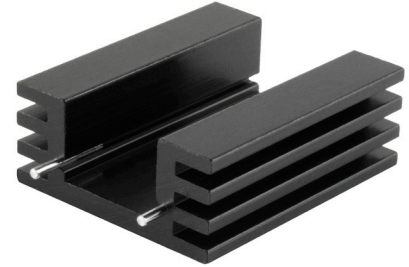


## SERIES: HSE-BX-040H | DESCRIPTION: HEAT SINK

### FEATURES

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



### MODEL

|                 | length<br>[mm] | thermal resistance <sup>1</sup> |                              |                             |                             | power<br>dissipation <sup>1</sup><br>@ 75°C ΔT, nat<br>conv [W] |
|-----------------|----------------|---------------------------------|------------------------------|-----------------------------|-----------------------------|---|
|                 |                | @ 75°C ΔT, nat<br>conv [°C/W]   | @ 1 W,<br>nat conv<br>[°C/W] | @ 1 W,<br>200 LFM<br>[°C/W] | @ 1 W,<br>400 LFM<br>[°C/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  |

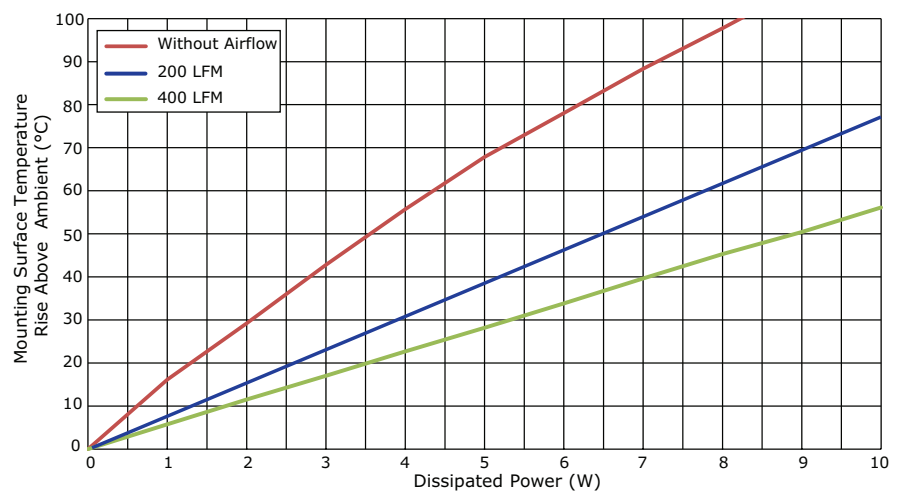
Note: 1. See performance curves for full thermal resistance details.  
2. Custom cut to length options available. Thermal data not available on custom lengths.

### PERFORMANCE CURVES

#### HSE-B20254-040H

| Power<br>[W] | Heatsink Temperature Rise Above<br>Ambient (ΔT = T <sub>hs</sub> - T <sub>a</sub> ) [°C] |         |         |
|--------------|--|---------|---------|
|              | Natural<br>Conv.   | 200 LFM | 400 LFM |
| 0            | 0  | 0       | 0       |
| 1            | 16.13  | 7.74    | 5.77    |
| 2            | 29.25  | 15.62   | 11.53   |
| 3            | 42.80  | 23.81   | 17.04   |
| 4            | 55.72  | 31.68   | 22.66   |
| 5            | 67.84  | 39.53   | 28.21   |
| 6            | 78.06  | 47.35   | 33.83   |
| 7            | 88.34  | 54.42   | 39.65   |
| 8            | 97.77  | 62.21   | 45.28   |
| 9            | 107.55   | 69.81   | 50.42   |
| 10           | 117.33   | 77.16   | 56.11   |

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

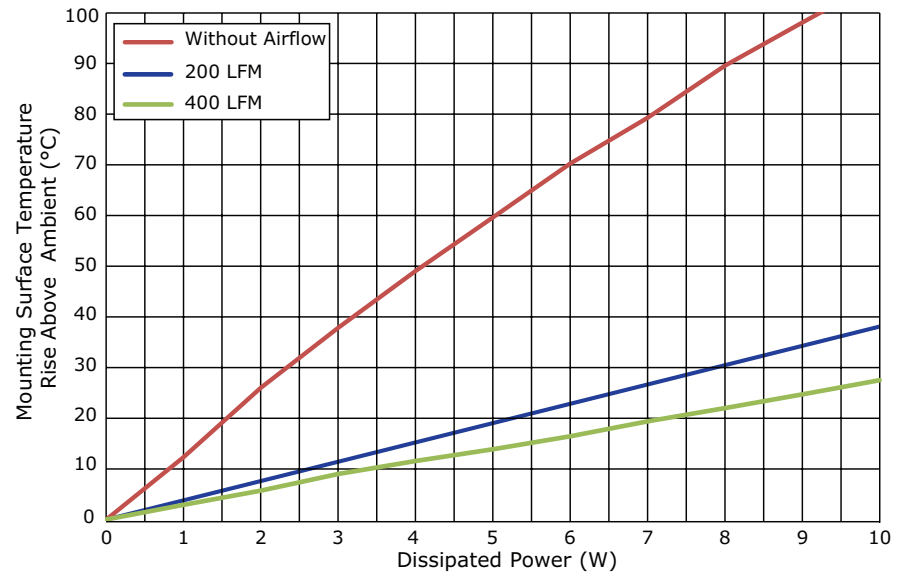


## PERFORMANCE CURVES (CONTINUED)

### HSE-B20381-040H

| Power<br>[W] | Heatsink Temperature Rise Above<br>Ambient ( $\Delta T = T_{hs} - T_a$ ) [°C] |         |         |
|--------------|---|---------|---------|
|              | 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   |

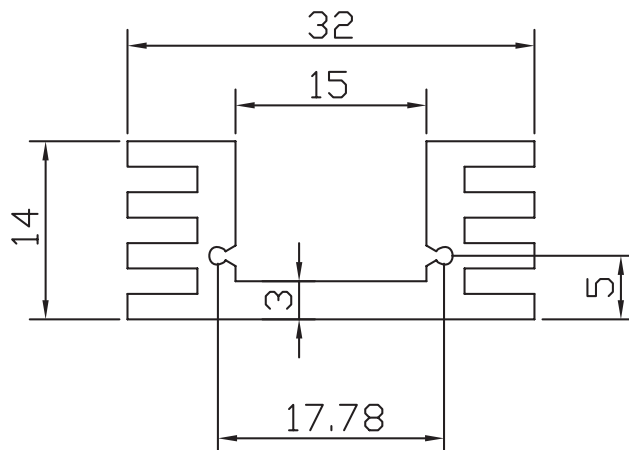
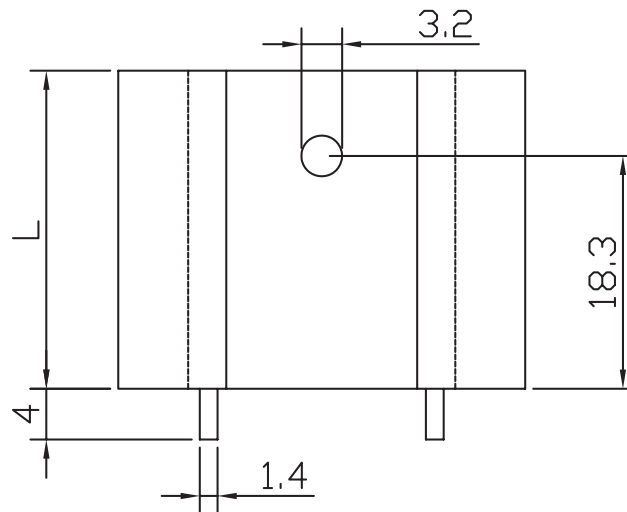
$T_{hs}$ : "hot spot" temperature measured on the heatsink  
 $T_a$ : ambient temperature



## 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<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 |

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



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