

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

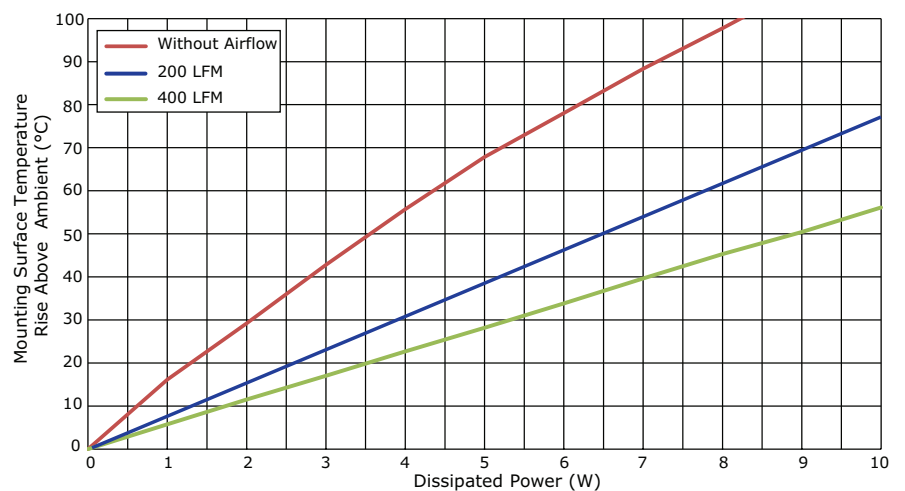
| | length [mm] | thermal resistance ¹ | | | | power dissipation ¹ @ 75°C ΔT, nat conv [W] |
|-----------------|----------------|---------------------------------|------------------------------|-----------------------------|-----------------------------|---|
| | | @ 75°C ΔT, nat conv [°C/W] | @ 1 W, nat conv [°C/W] | @ 1 W, 200 LFM [°C/W] | @ 1 W, 400 LFM [°C/W] | |
| HSE-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 [W] | Heatsink Temperature Rise Above Ambient [ΔT = T _{hs} - T _a] [°C] | | |
|-----------|---|---------|---------|
| | Natural 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 |



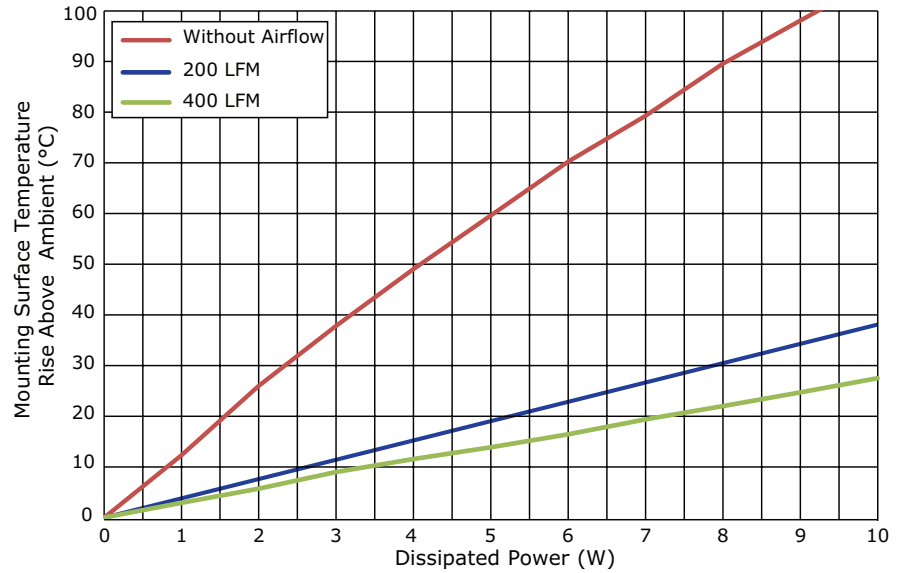
T_{hs}: "hot spot" temperature measured on the heatsink
T_a: ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B20381-040H

| 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 | 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 |

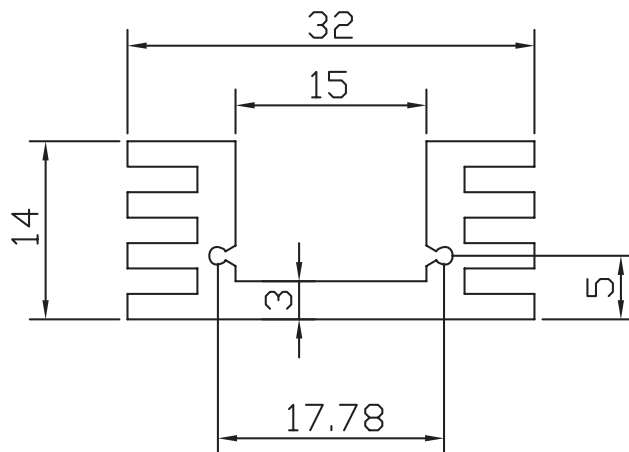
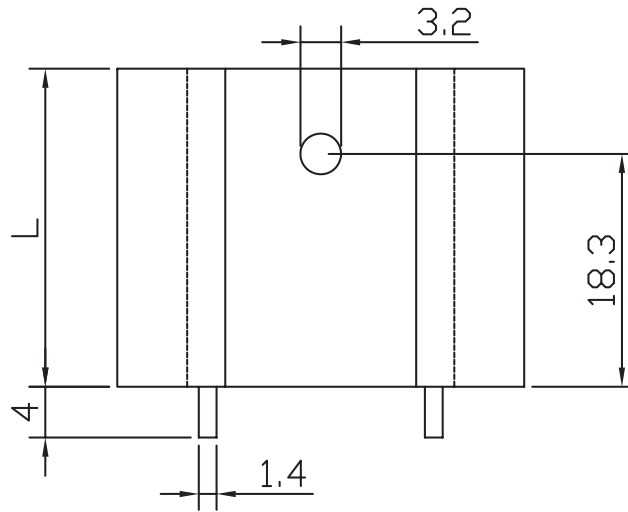
T_{hs} : "hot spot" temperature measured on the heatsink
 T_a : ambient temperature



MECHANICAL DRAWING

units: mm
tolerance: ±0.5 mm

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



| MODEL NO. | LENGTH, L [mm] | WEIGHT [g] |
|-----------------|----------------|------------|
| HSE-B20254-040H | 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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