

SERIES: HSE-BX-04H-01 | DESCRIPTION: HEAT SINK

FEATURES

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



MODEL

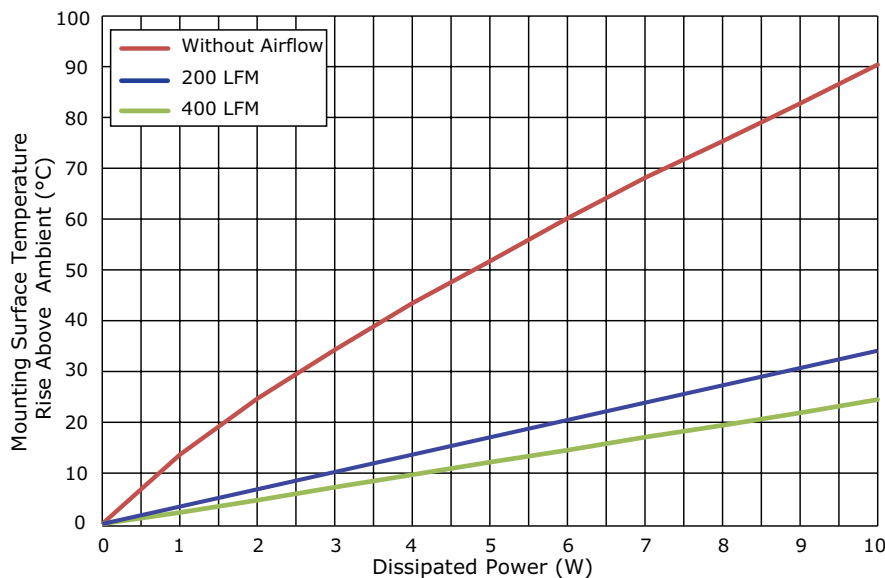
| | length (mm) | thermal resistance ¹ | | | | power dissipation ¹ @ 75°C ΔT, nat conv (W) |
|--------------|----------------|----------------------------------|------------------------------|-----------------------------|-----------------------------|--|
| | | @ 75°C ΔT, nat conv (°C/W) | @ 1 W, nat conv (°C/W) | @ 1 W, 200 LFM (°C/W) | @ 1 W, 400 LFM (°C/W) | |
| HSE-B250-04H | 25 | 9.38 | 13.60 | 3.26 | 2.25 | 8.00 |
| HSE-B500-04H | 50 | 6.15 | 8.05 | 2.88 | 2.12 | 12.20 |
| HSE-B630-04H | 63 | 5.21 | 9.37 | 2.31 | 1.86 | 14.40 |

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-B250-04H

| Power (W) | Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C) | | |
|--------------|--|---------|---------|
| | Natural Conv. | 200 LFM | 400 LFM |
| 0 | 0 | 0 | 0 |
| 1 | 13.60 | 3.26 | 2.25 |
| 2 | 24.62 | 6.61 | 4.65 |
| 3 | 34.26 | 10.05 | 7.18 |
| 4 | 43.45 | 13.46 | 9.67 |
| 5 | 51.69 | 16.85 | 12.11 |
| 6 | 60.18 | 20.16 | 14.49 |
| 7 | 68.13 | 23.72 | 17.06 |
| 8 | 75.33 | 27.06 | 19.37 |
| 9 | 82.77 | 30.36 | 21.85 |
| 10 | 90.41 | 34.06 | 24.45 |

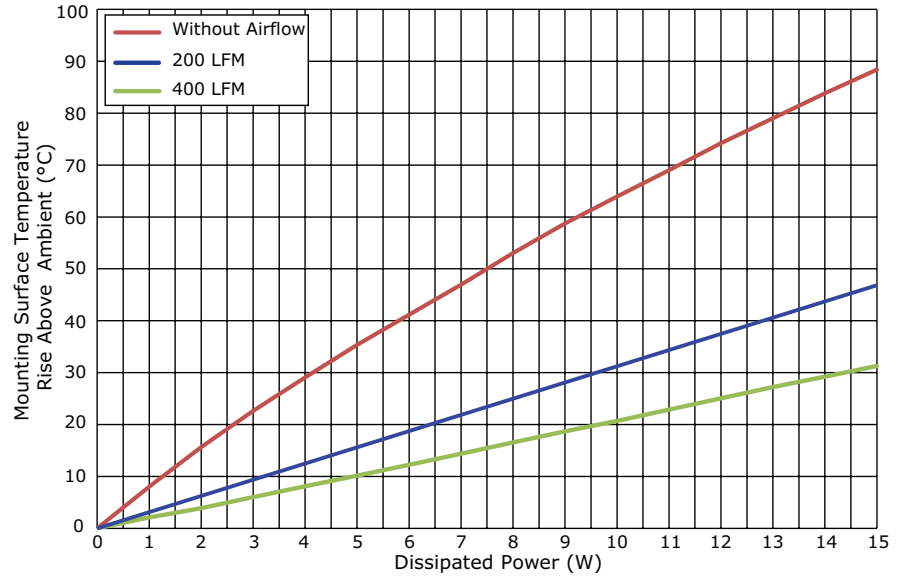


Ths: "hot spot" temperature measured on the heatsink
Ta: ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B500-04H

| 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 | 8.05 | 2.88 | 2.12 |
| 2 | 15.65 | 6.20 | 3.91 |
| 3 | 22.61 | 9.34 | 6.03 |
| 4 | 29.06 | 12.43 | 8.12 |
| 5 | 35.34 | 15.82 | 10.15 |
| 6 | 41.17 | 18.99 | 12.26 |
| 7 | 46.96 | 22.14 | 14.37 |
| 8 | 53.06 | 24.84 | 16.58 |
| 9 | 58.73 | 28.02 | 18.67 |
| 10 | 63.92 | 31.30 | 20.68 |
| 11 | 69.02 | 34.30 | 22.85 |
| 12 | 74.20 | 37.50 | 25.06 |
| 13 | 78.99 | 40.75 | 27.25 |
| 14 | 83.83 | 43.67 | 29.22 |
| 15 | 88.40 | 46.82 | 31.27 |

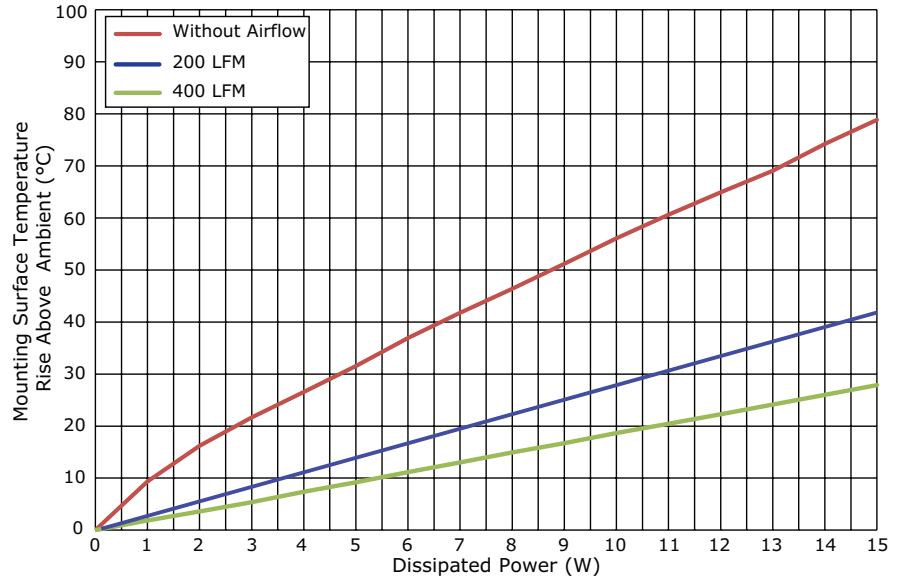


T_{hs}: "hot spot" temperature measured on the heatsink
 T_a: ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B630-04H

| 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 | 9.37 | 2.31 | 1.86 |
| 2 | 16.20 | 5.02 | 3.59 |
| 3 | 21.68 | 7.73 | 5.38 |
| 4 | 26.57 | 10.57 | 7.35 |
| 5 | 31.54 | 13.41 | 9.19 |
| 6 | 36.91 | 16.34 | 11.16 |
| 7 | 41.76 | 19.19 | 13.04 |
| 8 | 46.40 | 22.17 | 14.92 |
| 9 | 51.20 | 24.95 | 16.72 |
| 10 | 56.07 | 27.66 | 18.66 |
| 11 | 60.60 | 30.53 | 20.46 |
| 12 | 64.94 | 33.33 | 22.27 |
| 13 | 69.05 | 36.12 | 24.13 |
| 14 | 74.21 | 38.78 | 26.01 |
| 15 | 78.87 | 41.82 | 27.89 |

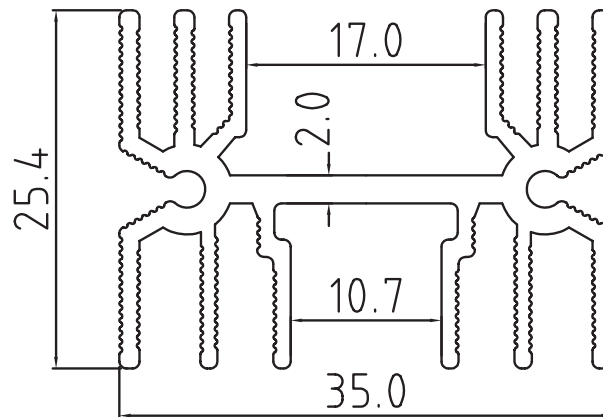
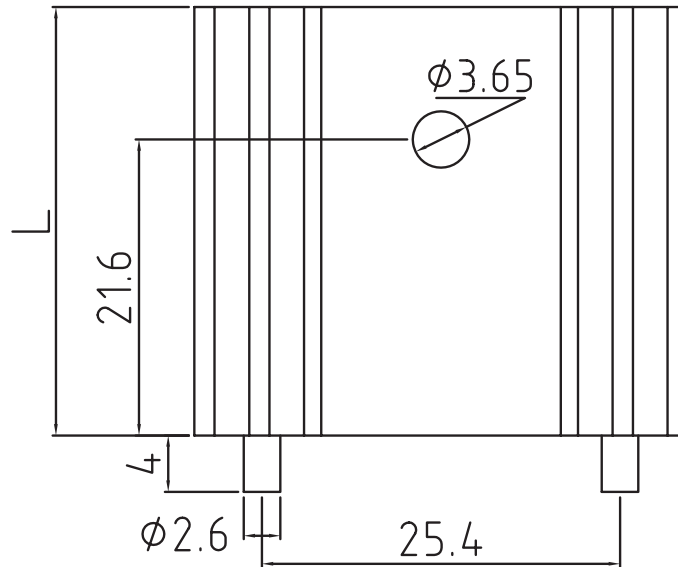


T_{hs}: "hot spot" temperature measured on the heatsink
 T_a: ambient temperature

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-B250-04H | 25 | 21.33 |
| HSE-B500-04H | 50 | 35.7 |
| HSE-B630-04H | 63 | 43.4 |

REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 05/08/2017 |
| 1.01 | brand update | 02/11/2020 |

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

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