

date 08/05/2022

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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 | | thermal resistance ¹ | | | | |
|--------------|----------------|-----------------------------------|-------------------------------------|---|---|-------------------------------|
| | length (mm) | @ 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) | @ 75°C ∆T, nat conv (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 |

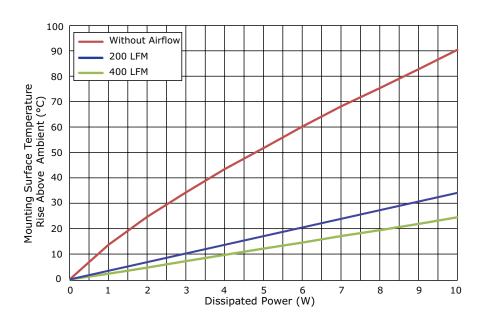
Note:

PERFORMANCE CURVES

HSE-B250-04H

| | Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C) | | | |
|--------------|---|---------|---------|--|
| Power (W) | 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 | |





^{1.} See performance curves for full thermal resistance details.

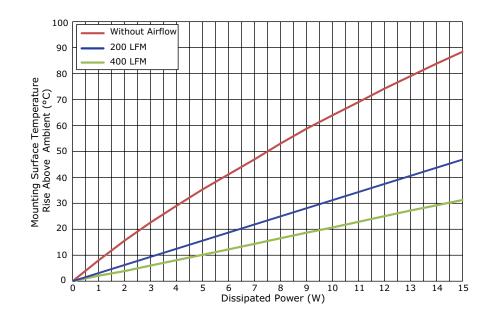
 $^{{\}bf 2. \ \ Custom \ cut \ to \ length \ options \ available. \ Thermal \ data \ not \ available \ on \ custom \ lengths.}$

PERFORMANCE CURVES (CONTINUED)

HSE-B500-04H

| | Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C) | | | |
|--------------|---|---------|---------|--|
| Power (W) | 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 | |





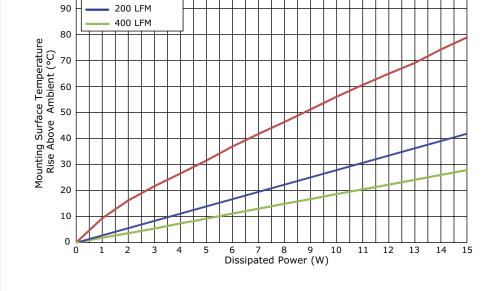
Without Airflow

100

PERFORMANCE CURVES (CONTINUED)

HSE-B630-04H

| | Heatsink Temperature Rise Above Ambient (ΔT = Ths - Ta) (°C) | | | |
|--------------|---|---------|---------|--|
| Power (W) | 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 | |

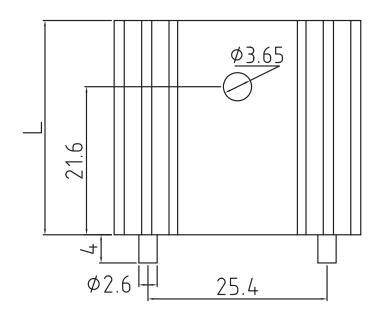


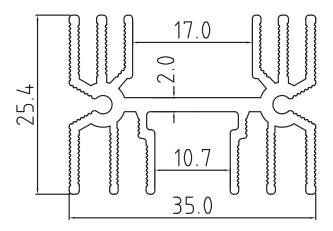
Ths: "hot spot" temperature measured on the heatsink Ta: ambient temperature

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-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 |
| 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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