

SERIES: HSE-BX-035H-02 | **DESCRIPTION:** HEAT SINK

FEATURES

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



MODEL

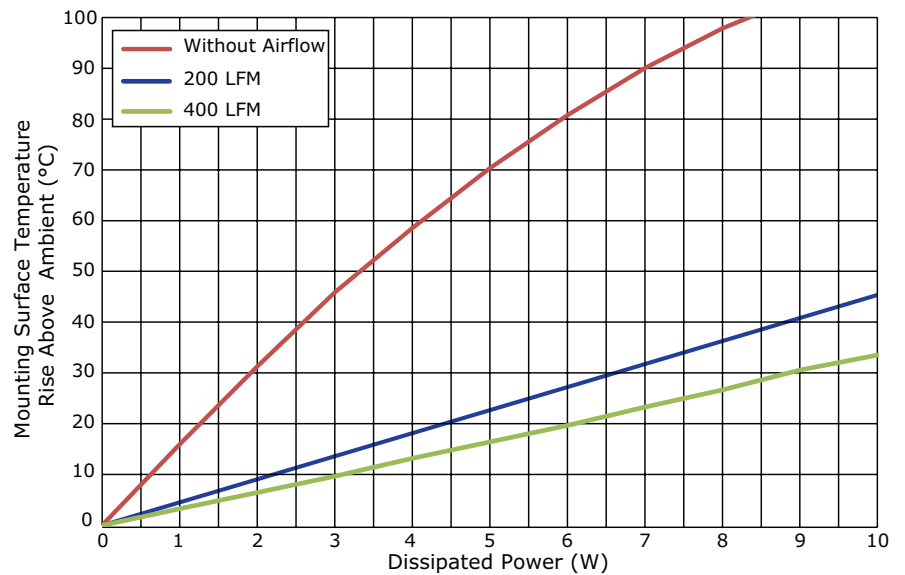
| | length (mm) | thermal resistance ¹ | | | | power dissipation ¹ @ 75°C ΔT, nat conv [W] |
|--------------------|----------------|---------------------------------|------------------------------|-----------------------------|-----------------------------|---|
| | | @ 75°C ΔT, nat conv [°C/W] | @ 1 W, nat conv [°C/W] | @ 1 W, 200 LFM [°C/W] | @ 1 W, 400 LFM [°C/W] | |
| HSE-B20254-035H-02 | 25.4 | 13.64 | 15.97 | 4.39 | 3.27 | 5.50 |
| HSE-B20381-035H-02 | 38.1 | 10.87 | 13.97 | 3.32 | 2.14 | 6.90 |
| HSE-B20508-035H-01 | 50.8 | 9.15 | 13.03 | 4.76 | 3.21 | 8.20 |
| HSE-B20635-035H-01 | 63.5 | 7.98 | 11.06 | 4.49 | 3.31 | 9.40 |

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-B20254-035H-02

| Power [W] | Heatsink Temperature Rise Above Ambient [ΔT = T _{hs} - T _a] [°C] | | |
|-----------|---|---------|---------|
| | Natural Conv. | 200 LFM | 400 LFM |
| 0 | 0 | 0 | 0 |
| 1 | 15.97 | 4.39 | 3.27 |
| 2 | 31.26 | 8.90 | 6.45 |
| 3 | 45.86 | 13.39 | 9.63 |
| 4 | 58.55 | 17.73 | 13.18 |
| 5 | 70.33 | 21.93 | 16.39 |
| 6 | 80.76 | 26.48 | 19.66 |
| 7 | 90.04 | 30.88 | 23.26 |
| 8 | 97.89 | 35.46 | 26.64 |
| 9 | 104.05 | 40.56 | 30.58 |
| 10 | 112.16 | 45.35 | 33.51 |



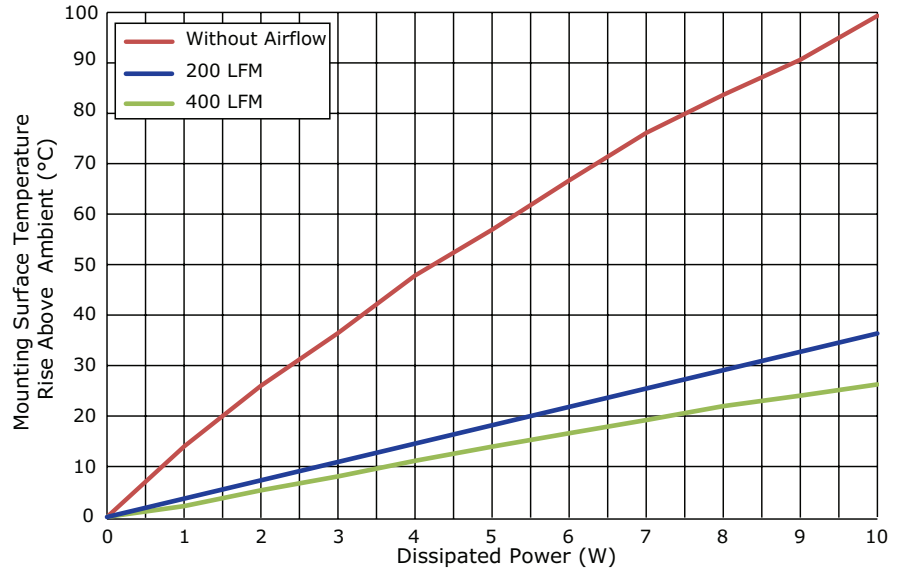
T_{hs}: "hot spot" temperature measured on the heatsink
T_a: ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B20381-035H-02

| 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 | 13.97 | 3.32 | 2.14 |
| 2 | 26.02 | 7.06 | 5.29 |
| 3 | 36.45 | 10.74 | 8.06 |
| 4 | 47.83 | 14.35 | 11.12 |
| 5 | 56.91 | 18.07 | 13.94 |
| 6 | 66.68 | 21.87 | 16.57 |
| 7 | 76.12 | 25.59 | 19.23 |
| 8 | 83.63 | 29.34 | 21.97 |
| 9 | 90.62 | 33.16 | 24.05 |
| 10 | 99.30 | 36.38 | 26.25 |

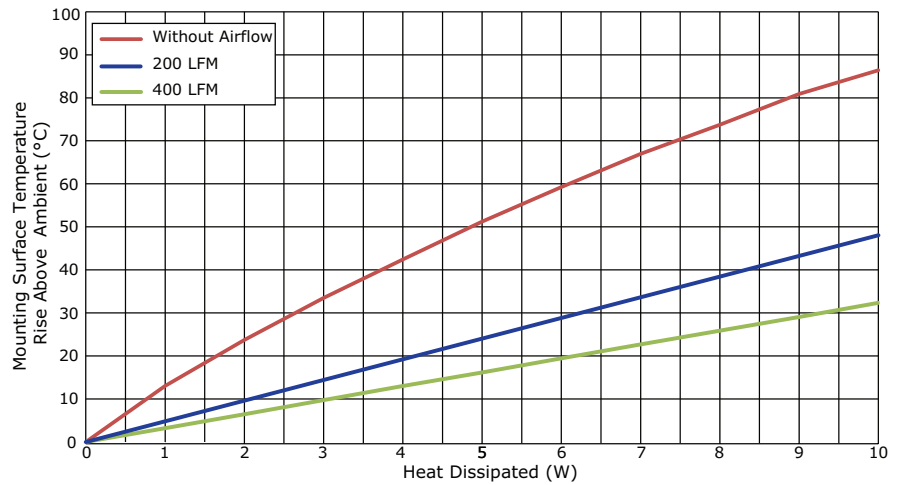
T_{hs}: "hot spot" temperature measured on the heatsink
 T_a: ambient temperature



HSE-B20508-035H-01

| 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 | 13.03 | 4.76 | 3.21 |
| 2 | 23.71 | 9.71 | 6.44 |
| 3 | 33.48 | 14.54 | 9.72 |
| 4 | 42.45 | 19.34 | 12.99 |
| 5 | 51.22 | 24.34 | 16.17 |
| 6 | 59.26 | 29.08 | 19.43 |
| 7 | 66.97 | 33.72 | 22.66 |
| 8 | 73.76 | 38.43 | 25.87 |
| 9 | 80.91 | 43.29 | 29.05 |
| 10 | 86.41 | 48.07 | 32.37 |

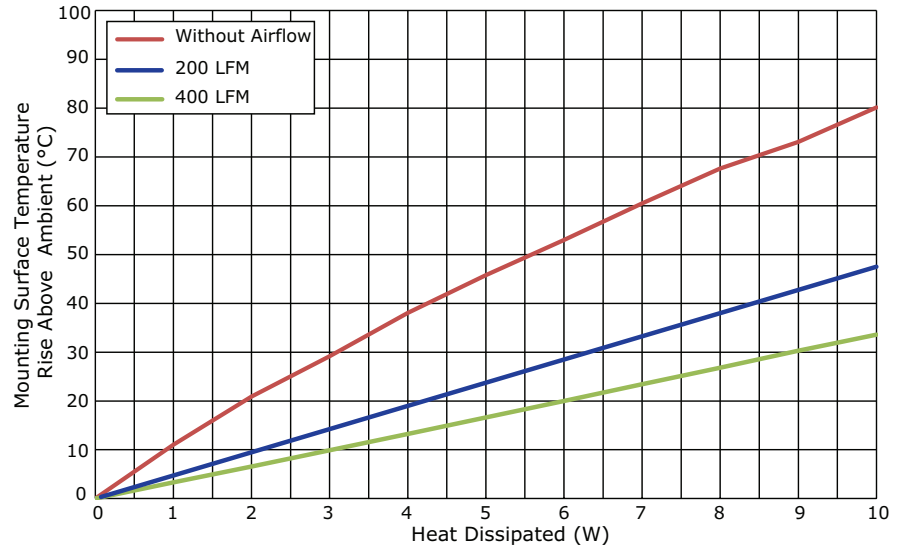
T_{hs}: "hot spot" temperature measured on the heatsink
 T_a: ambient temperature



PERFORMANCE CURVES (CONTINUED)

HSE-B20635-035H-01

| 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 | 11.06 | 4.49 | 3.31 |
| 2 | 20.90 | 9.06 | 6.55 |
| 3 | 29.15 | 14.11 | 9.89 |
| 4 | 38.05 | 18.83 | 13.25 |
| 5 | 45.79 | 23.74 | 16.62 |
| 6 | 52.98 | 28.44 | 19.99 |
| 7 | 60.48 | 33.15 | 23.42 |
| 8 | 67.65 | 38.24 | 26.83 |
| 9 | 73.09 | 42.81 | 30.28 |
| 10 | 80.13 | 47.53 | 33.57 |

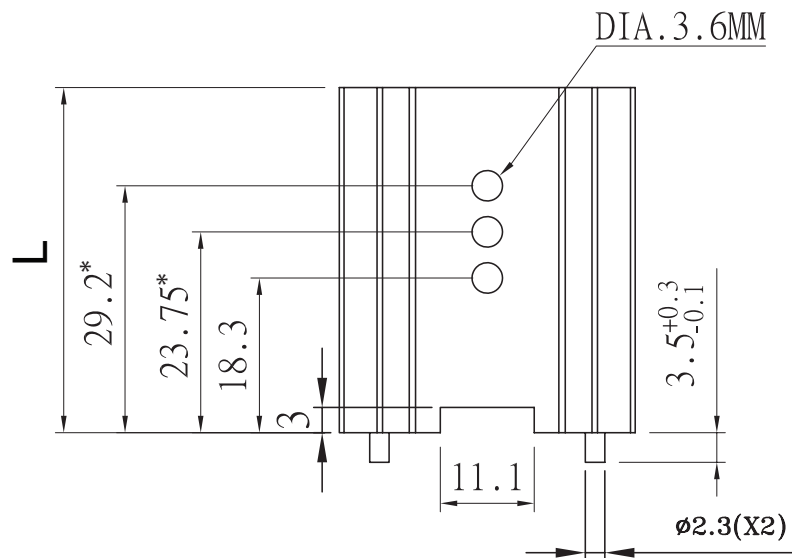
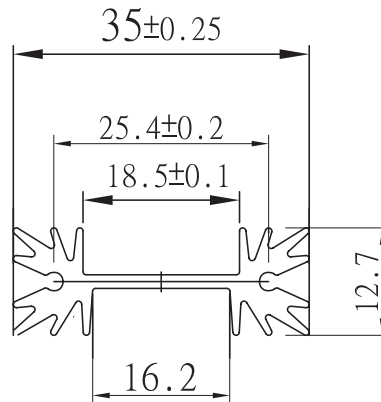


T_{hs}: "hot spot" temperature measured on the heatsink
 T_a: ambient temperature

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-B20254-035H-02* | 25.4 | 11.33 |
| HSE-B20381-035H-02 | 38.1 | 16.67 |
| HSE-B20508-035H-01 | 50.8 | 22.22 |
| HSE-B20635-035H-01 | 63.5 | 27.5 |

Note: * Mounting holes not present on 25.4 mm length model.

REVISION HISTORY

| rev. | description | date |
|------|------------------------------|------------|
| 1.0 | initial release | 05/04/2017 |
| 1.01 | updated datasheet | 09/11/2017 |
| 1.02 | brand update | 02/11/2020 |
| 1.03 | 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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