



SERIES: HSE-B18X-060H-W | DESCRIPTION: HEAT SINK

FEATURES

- TO-218 package
- placement pins for secure PCB attachment
- round hole for component attachment
- multiple available cut lengths



MODEL

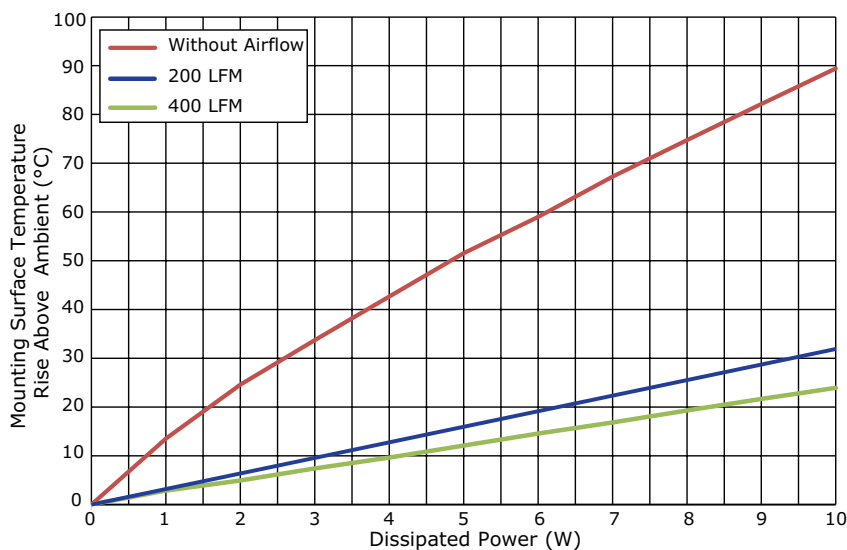
| | length [mm] | thermal resistance ¹ | | | | power dissipation ¹ @ 75°C ΔT, nat conv [W] |
|-------------------|----------------|---------------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------------|
| | | @ 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-B18254-060H-W | 25.4 | 9.26 | 13.52 | 3.09 | 2.86 | 8.10 |
| HSE-B18381-060H-W | 38.1 | 6.25 | 8.34 | 3.52 | 2.48 | 12.00 |
| HSE-B18508-060H-W | 50.8 | 5.86 | 8.63 | 2.98 | 2.21 | 12.80 |
| HSE-B18635-060H-W | 63.5 | 4.49 | 6.61 | 2.24 | 1.22 | 16.70 |

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-B18254-060H-W

| Power [W] | Heatsink Temperature Rise Above Ambient [ΔT = T _{hs} - T _a] [°C] | | |
|--------------|------------------------------------------------------------------------------------------|---------|---------|
| | Natural Conv. | 200 LFM | 400 LFM |
| 0 | 0 | 0 | 0 |
| 1 | 13.52 | 3.09 | 2.86 |
| 2 | 24.58 | 6.19 | 4.94 |
| 3 | 33.71 | 9.47 | 7.42 |
| 4 | 42.65 | 12.64 | 9.60 |
| 5 | 51.54 | 15.85 | 12.11 |
| 6 | 58.98 | 18.94 | 14.54 |
| 7 | 67.25 | 22.34 | 16.84 |
| 8 | 74.76 | 25.54 | 19.31 |
| 9 | 82.16 | 28.87 | 21.66 |
| 10 | 89.43 | 31.89 | 23.95 |

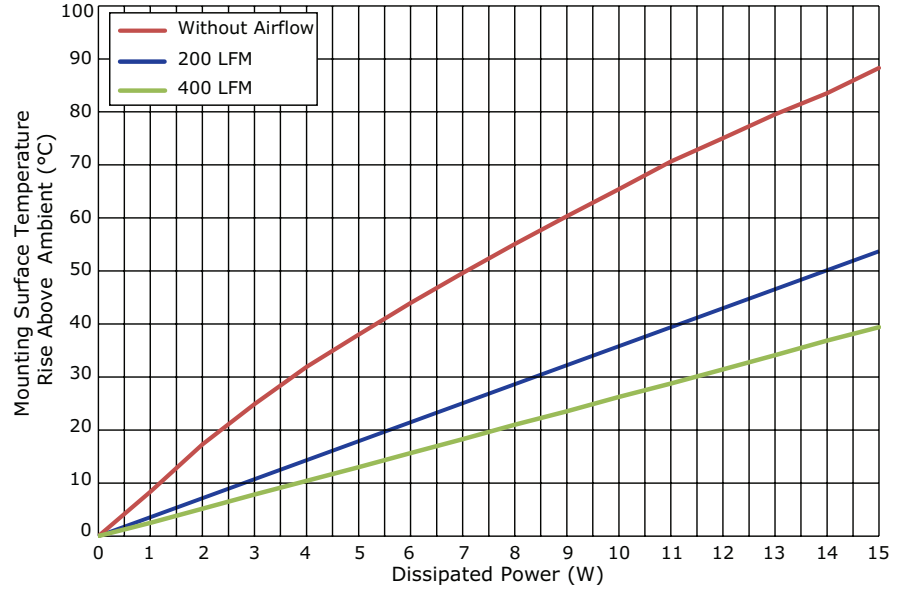


T_{hs}: "hot spot" temperature measured on the heatsink
T_a: ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B18381-060H-W

| 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 | 8.34 | 3.52 | 2.48 |
| 2 | 17.28 | 7.15 | 5.14 |
| 3 | 24.87 | 10.93 | 7.81 |
| 4 | 31.91 | 13.98 | 10.40 |
| 5 | 37.99 | 17.64 | 12.99 |
| 6 | 43.96 | 21.23 | 15.68 |
| 7 | 49.59 | 24.98 | 18.29 |
| 8 | 55.07 | 28.39 | 20.98 |
| 9 | 60.30 | 32.32 | 23.53 |
| 10 | 65.45 | 36.09 | 26.23 |
| 11 | 70.65 | 39.56 | 28.77 |
| 12 | 75.05 | 43.04 | 31.44 |
| 13 | 79.53 | 46.43 | 34.11 |
| 14 | 83.55 | 49.75 | 36.86 |
| 15 | 88.31 | 53.73 | 39.41 |

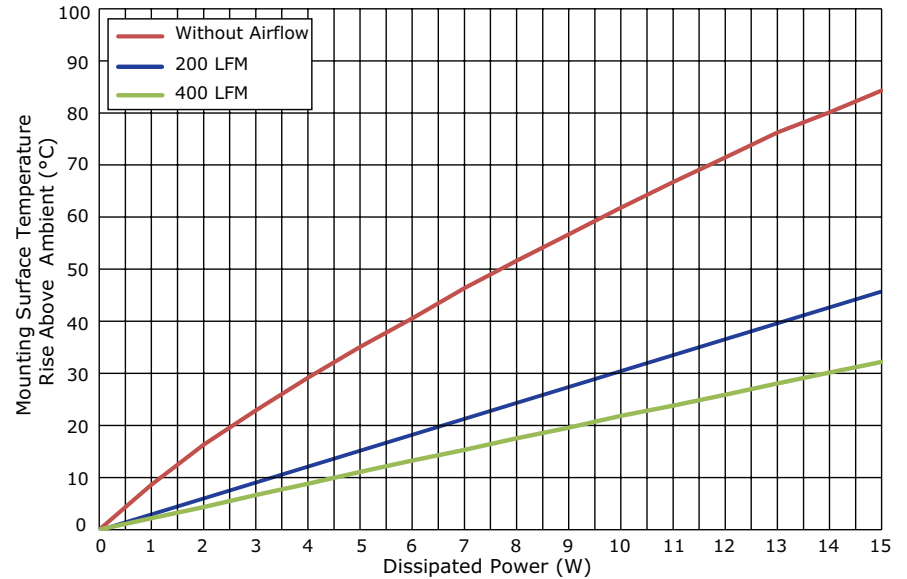


T_{hs}: "hot spot" temperature measured on the heatsink
 T_a: ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B18508-060H-W

| 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 | 8.63 | 2.98 | 2.21 |
| 2 | 16.33 | 6.10 | 4.34 |
| 3 | 22.88 | 9.00 | 6.65 |
| 4 | 29.17 | 12.06 | 8.83 |
| 5 | 35.07 | 15.23 | 11.09 |
| 6 | 40.52 | 18.23 | 13.25 |
| 7 | 46.34 | 21.19 | 15.32 |
| 8 | 51.61 | 24.37 | 17.51 |
| 9 | 56.70 | 27.50 | 19.57 |
| 10 | 61.77 | 30.65 | 21.84 |
| 11 | 66.74 | 33.54 | 23.78 |
| 12 | 71.44 | 36.80 | 25.90 |
| 13 | 76.25 | 39.62 | 28.07 |
| 14 | 80.09 | 42.73 | 30.17 |
| 15 | 84.32 | 45.73 | 32.21 |

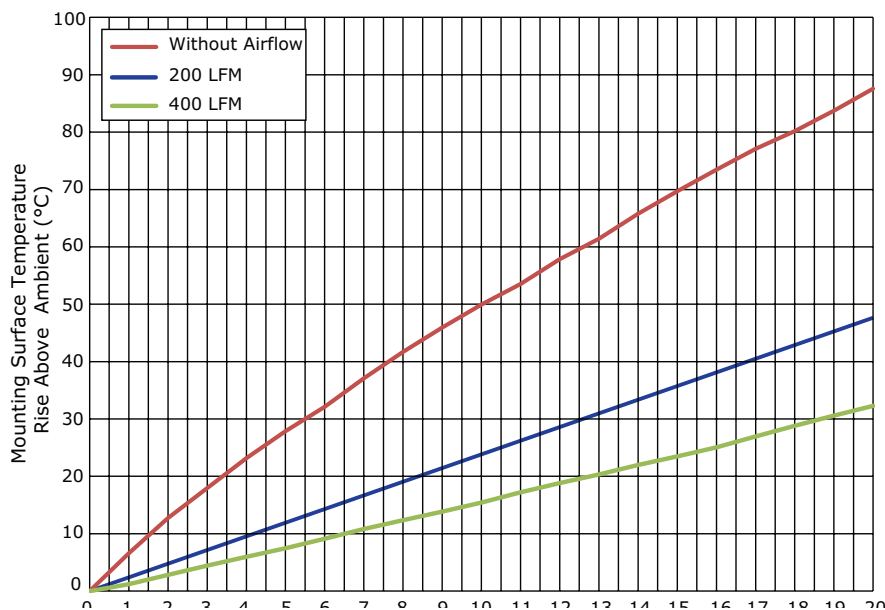


T_{hs} : "hot spot" temperature measured on the heatsink
 T_a : ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B18635-060H-W

| 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 | 6.61 | 2.24 | 1.22 |
| 2 | 12.73 | 4.57 | 2.80 |
| 3 | 17.96 | 7.08 | 4.43 |
| 4 | 23.17 | 9.36 | 5.95 |
| 5 | 27.87 | 11.84 | 7.45 |
| 6 | 32.13 | 14.18 | 9.12 |
| 7 | 37.08 | 16.65 | 10.83 |
| 8 | 41.69 | 19.14 | 12.37 |
| 9 | 45.91 | 21.56 | 13.84 |
| 10 | 49.93 | 24.05 | 15.42 |
| 11 | 53.54 | 26.41 | 17.20 |
| 12 | 57.87 | 28.59 | 18.81 |
| 13 | 61.43 | 31.04 | 20.31 |
| 14 | 65.76 | 33.48 | 21.97 |
| 15 | 69.68 | 35.82 | 23.48 |
| 16 | 73.44 | 38.17 | 25.05 |
| 17 | 77.08 | 40.51 | 26.93 |
| 18 | 80.18 | 42.90 | 28.82 |
| 19 | 83.71 | 45.25 | 30.61 |
| 20 | 87.57 | 47.63 | 32.29 |

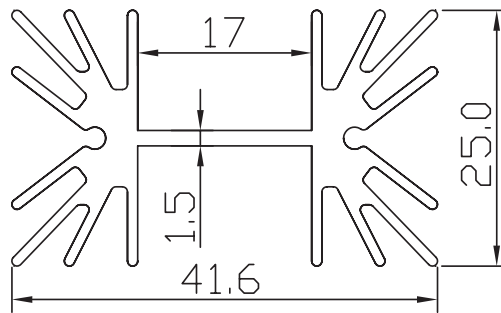
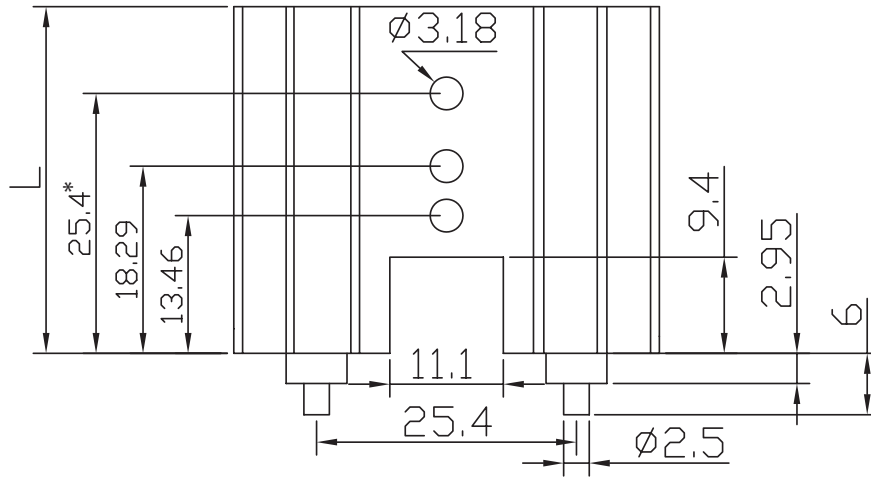


T_{hs}: "hot spot" temperature measured on the heatsink
 T_a: ambient temperature

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-B18254-060H-W* | 25.4 | 20 |
| HSE-B18381-060H-W | 38.1 | 28.34 |
| HSE-B18508-060H-W | 50.8 | 37.8 |
| HSE-B18635-060H-W | 63.5 | 50 |

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

REVISION HISTORY

| rev. | description | date |
|------|------------------------------|------------|
| 1.0 | initial release | 05/12/2017 |
| 1.01 | updated datasheet | 09/07/2017 |
| 1.02 | updated datasheet | 12/18/2017 |
| 1.03 | brand update | 02/10/2020 |
| 1.04 | 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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