

**SERIES:** HSE-B18X-035H | **DESCRIPTION:** HEAT SINK**FEATURES**

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

**MODEL**

|                 | length<br>[mm] | thermal resistance <sup>1</sup> |                              |                             |                             | power<br>dissipation <sup>1</sup><br>@ 75°C ΔT, nat<br>conv [W] |
|-----------------|----------------|---------------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------------|
|                 |                | @ 75°C ΔT, nat<br>conv [°C/W]   | @ 1 W,<br>nat conv<br>[°C/W] | @ 1 W,<br>200 LFM<br>[°C/W] | @ 1 W,<br>400 LFM<br>[°C/W] |                                                                 |
| HSE-B18254-035H | 25.4           | 9.26                            | 13.52                        | 3.09                        | 2.86                        | 8.10                                                            |
| HSE-B18317-035H | 31.75          | 7.65                            | 10.96                        | 3.63                        | 2.80                        | 9.80                                                            |
| HSE-B18381-035H | 38.1           | 6.25                            | 8.34                         | 3.52                        | 2.48                        | 12.00                                                           |
| HSE-B18508-035H | 50.8           | 5.86                            | 8.63                         | 2.98                        | 2.21                        | 12.80                                                           |
| HSE-B18635-035H | 63.5           | 4.49                            | 6.61                         | 2.24                        | 1.22                        | 16.70                                                           |

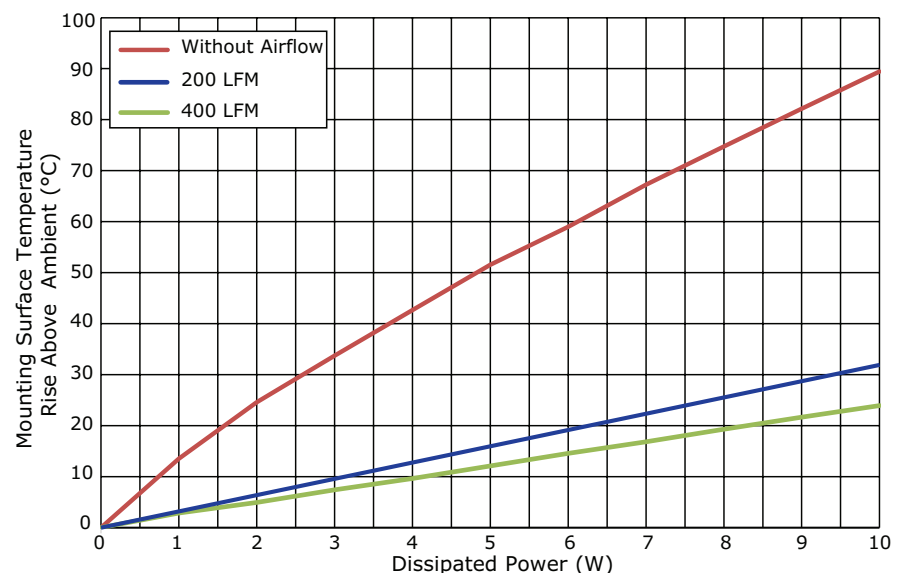
Note:

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-B18254-035H**

| Power<br>[W] | Heatsink Temperature Rise Above<br>Ambient [ΔT = T <sub>hs</sub> - T <sub>a</sub> ] [°C] |         |         |
|--------------|------------------------------------------------------------------------------------------|---------|---------|
|              | Natural<br>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   |



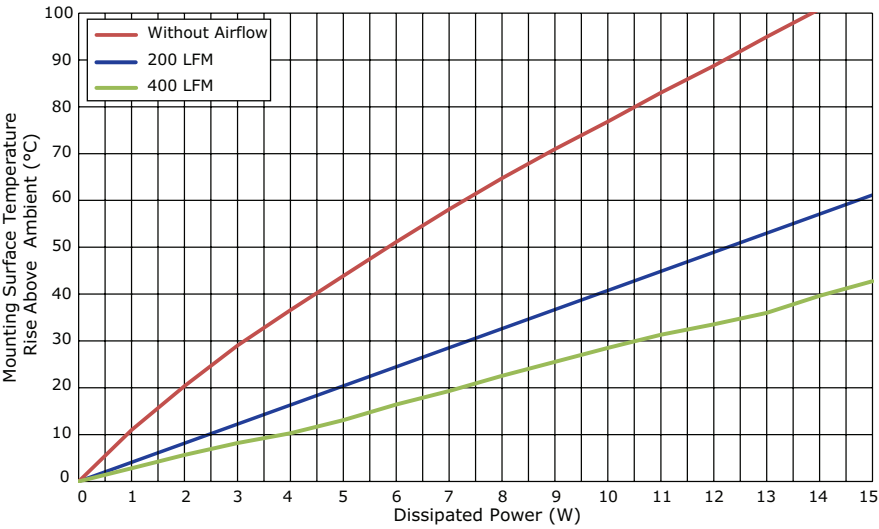
T<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature

PERFORMANCE CURVES (CONTINUED)

HSE-B18317-035H

| Heatsink Temperature Rise Above Ambient ( $\Delta T = T_{hs} - T_a$ ) [°C] |               |         |         |
|----------------------------------------------------------------------------|---------------|---------|---------|
| Power [W]                                                                  | Natural Conv. | 200 LFM | 400 LFM |
| 0                                                                          | 0             | 0       | 0       |
| 1                                                                          | 10.96         | 3.63    | 2.80    |
| 2                                                                          | 20.38         | 7.98    | 5.65    |
| 3                                                                          | 29.02         | 12.37   | 8.21    |
| 4                                                                          | 36.58         | 16.50   | 10.28   |
| 5                                                                          | 43.86         | 20.35   | 13.11   |
| 6                                                                          | 51.12         | 24.67   | 16.43   |
| 7                                                                          | 58.09         | 28.82   | 19.32   |
| 8                                                                          | 64.74         | 33.13   | 22.54   |
| 9                                                                          | 70.97         | 37.07   | 25.55   |
| 10                                                                         | 76.83         | 41.01   | 28.51   |
| 11                                                                         | 83.01         | 45.19   | 31.32   |
| 12                                                                         | 88.74         | 49.10   | 33.54   |
| 13                                                                         | 94.93         | 53.11   | 35.98   |
| 14                                                                         | 100.86        | 57.05   | 39.63   |
| 15                                                                         | 106.26        | 61.16   | 42.76   |

T<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature

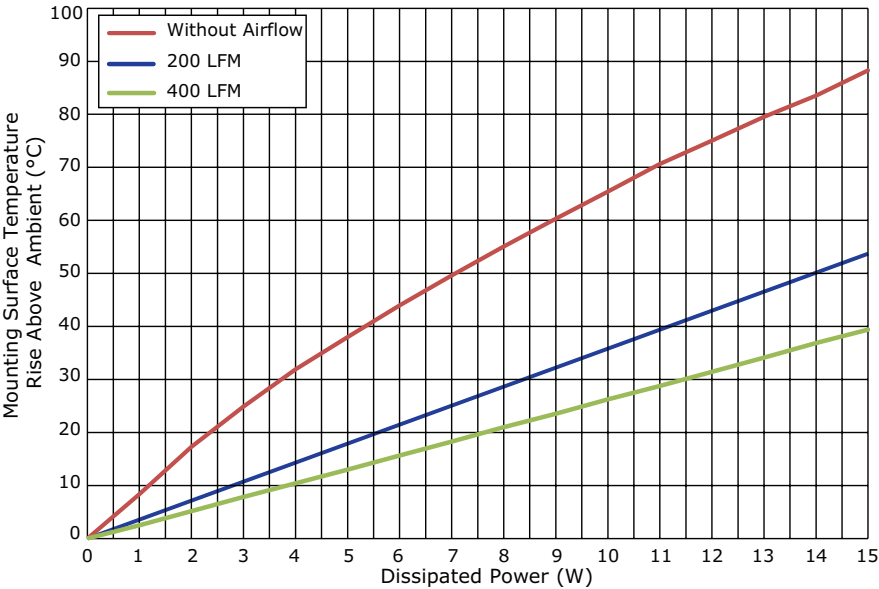


PERFORMANCE CURVES (CONTINUED)

HSE-B18381-035H

| Power<br>[W] | Heatsink Temperature Rise Above<br>Ambient ( $\Delta T = T_{hs} - T_a$ ) [°C] |         |         |
|--------------|-------------------------------------------------------------------------------|---------|---------|
|              | Natural<br>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<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature

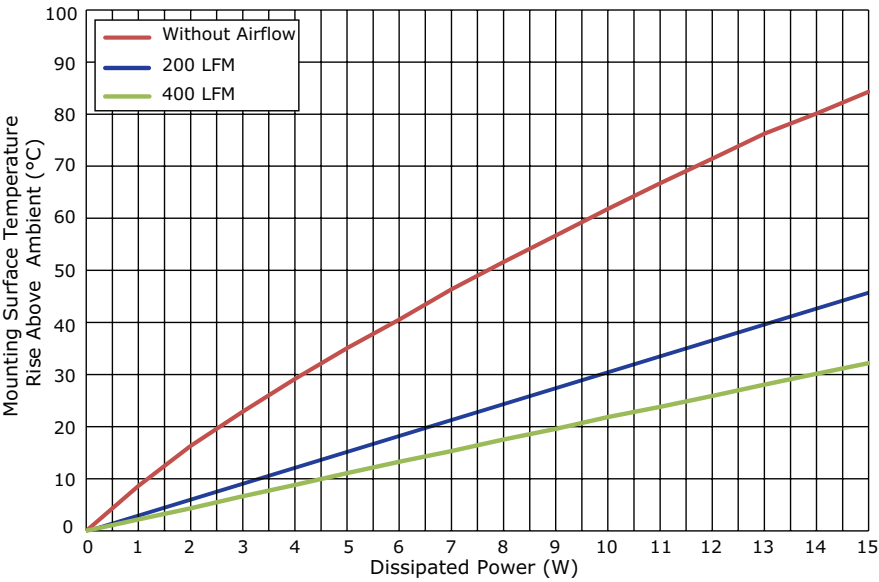


PERFORMANCE CURVES (CONTINUED)

HSE-B18508-035H

| Power<br>[W] | Heatsink Temperature Rise Above<br>Ambient ( $\Delta T = T_{hs} - T_a$ ) [°C] |         |         |
|--------------|-------------------------------------------------------------------------------|---------|---------|
|              | Natural<br>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<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature

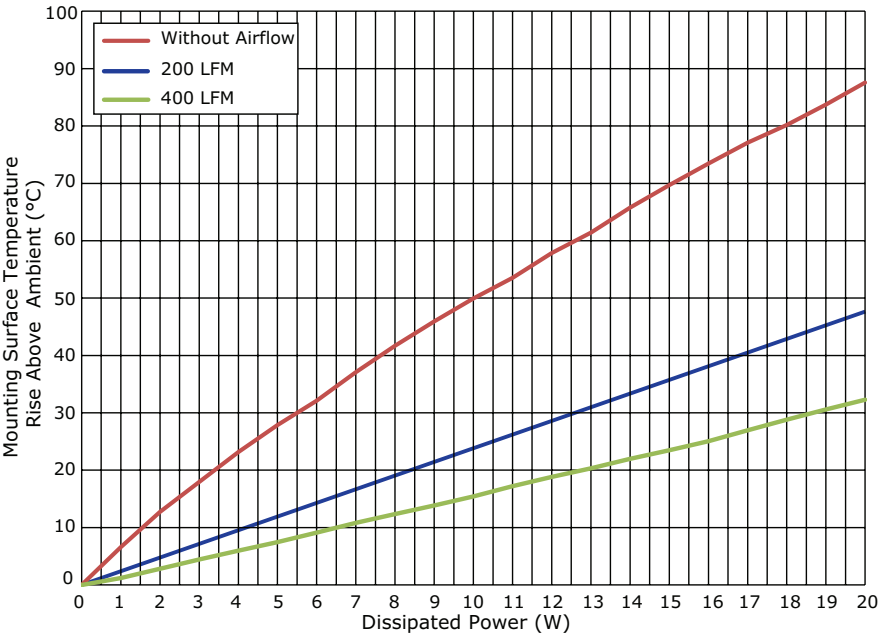


PERFORMANCE CURVES (CONTINUED)

HSE-B18635-035H

| Heatsink Temperature Rise Above Ambient ( $\Delta T = T_{hs} - T_a$ ) [°C] |               |         |         |
|----------------------------------------------------------------------------|---------------|---------|---------|
| Power [W]                                                                  | 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   |

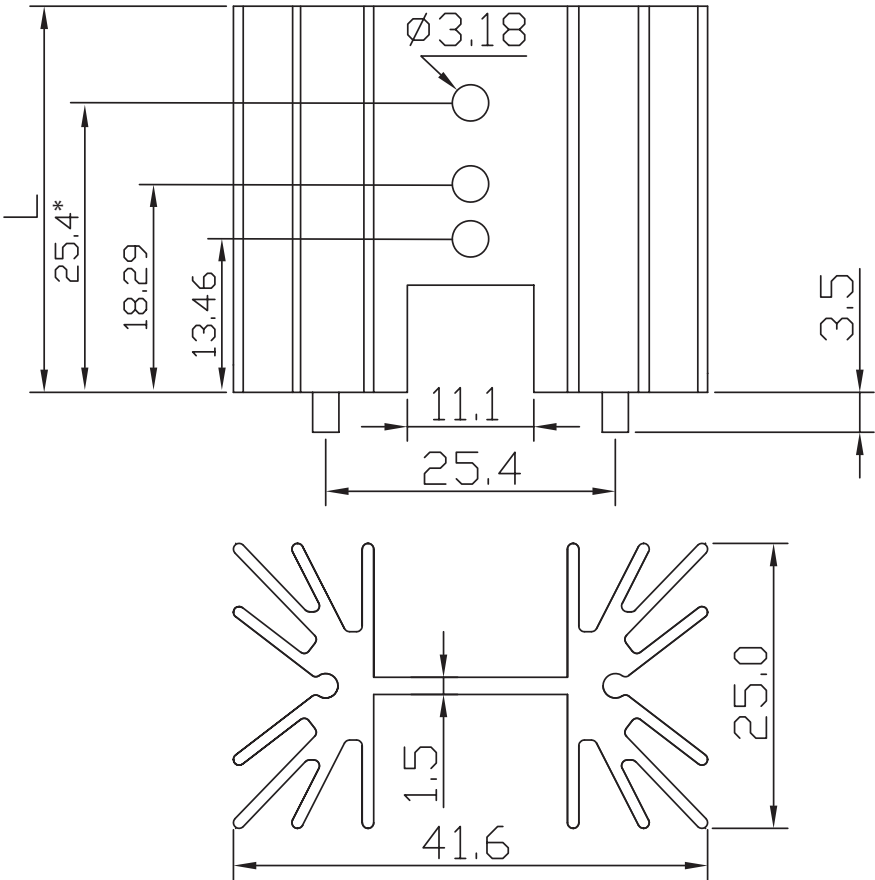
T<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature



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-B18254-035H* | 25.4           | 20         |
| HSE-B18317-035H  | 31.75          | 23         |
| HSE-B18381-035H  | 38.1           | 28.34      |
| HSE-B18508-035H  | 50.8           | 37.8       |
| HSE-B18635-035H  | 63.5           | 50         |

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

REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 05/11/2017 |
| 1.01 | updated datasheet                 | 09/07/2017 |
| 1.02 | brand update                      | 02/10/2020 |
| 1.03 | added pin dimensions              | 08/17/2020 |
| 1.04 | logo, datasheet style update      | 08/05/2022 |
| 1.05 | CUI Devices rebranded to Same Sky | 09/12/2024 |

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



Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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