



SERIES: HSS-B20-0635 | DESCRIPTION: HEAT SINK

FEATURES

- TO-220 package
- solder pin for secure PCB mounting
- round hole for component attachment
- black anodized finish



MODEL

|                  | fin height<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] |                                                                 |
| HSS-B20-0635H    | 6.35               | 28.85                           | 35.46                        | 10.68                       | 7.88                        | 2.60                                                            |
| HSS-B20-0635H-01 | 9.53               | 27.78                           | 33.93                        | 9.51                        | 6.84                        | 2.70                                                            |
| HSS-B20-0635H-02 | 12.70              | 29.09                           | 33.89                        | 10.49                       | 6.81                        | 2.58                                                            |

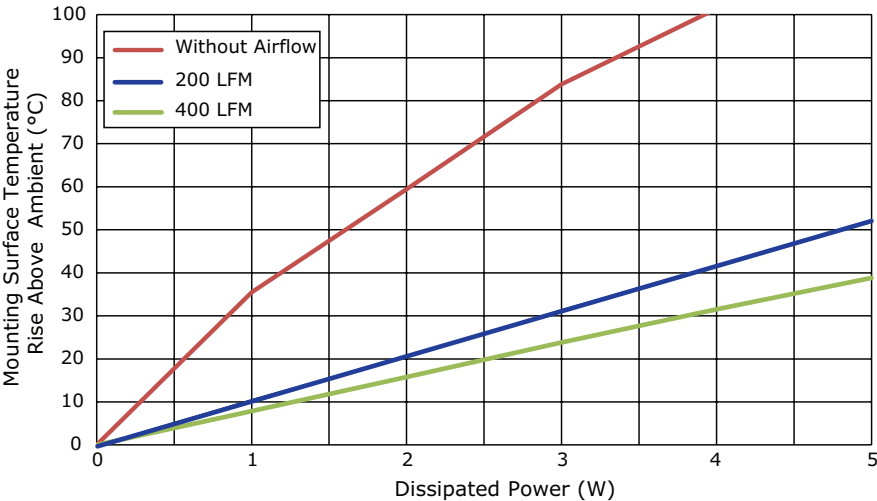
Note: 1. See performance curves for full thermal resistance details.

PERFORMANCE CURVES

HSS-B20-0635H

| 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            | 35.46                                                                                    | 10.68   | 7.88    |
| 2            | 59.42                                                                                    | 20.81   | 15.77   |
| 3            | 83.82                                                                                    | 31.59   | 23.83   |
| 4            | 101.40                                                                                   | 41.80   | 31.52   |
| 5            | 122.52                                                                                   | 52.02   | 38.83   |

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

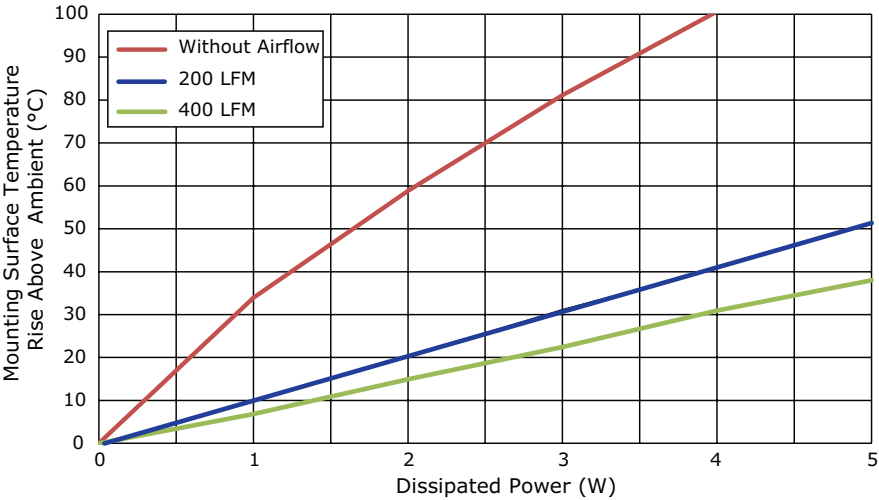


PERFORMANCE CURVES (CONTINUED)

HSS-B20-0635H-01

| 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            | 33.93                                                                         | 9.51    | 6.84    |
| 2            | 58.86                                                                         | 20.45   | 14.91   |
| 3            | 81.12                                                                         | 31.36   | 22.45   |
| 4            | 100.66                                                                        | 40.98   | 30.96   |
| 5            | 121.15                                                                        | 51.38   | 38.04   |

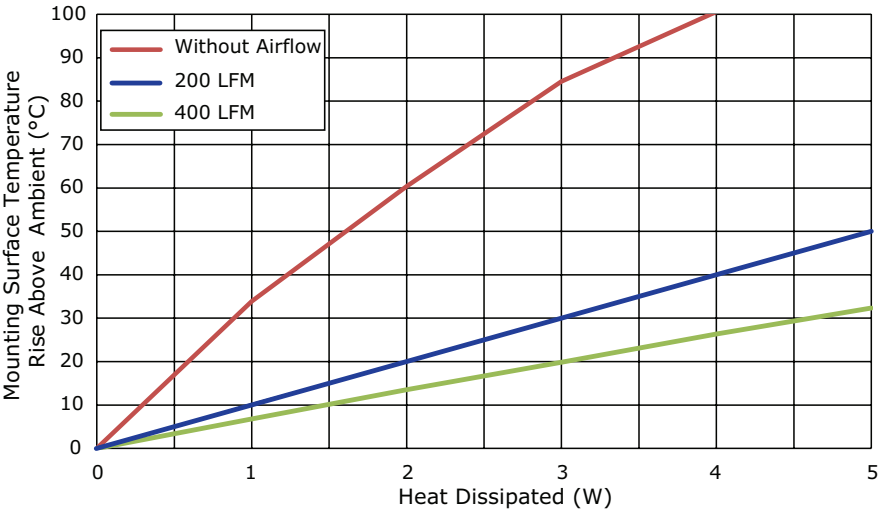
T<sub>hs</sub>: "hot spot" temperature measured on the heatsink  
T<sub>a</sub>: ambient temperature



HSS-B20-0635H-02

| 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            | 33.89                                                                         | 10.49   | 6.81    |
| 2            | 60.40                                                                         | 20.20   | 13.50   |
| 3            | 84.56                                                                         | 30.26   | 19.87   |
| 4            | 100.59                                                                        | 40.17   | 26.37   |
| 5            | 112.14                                                                        | 49.67   | 32.37   |

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

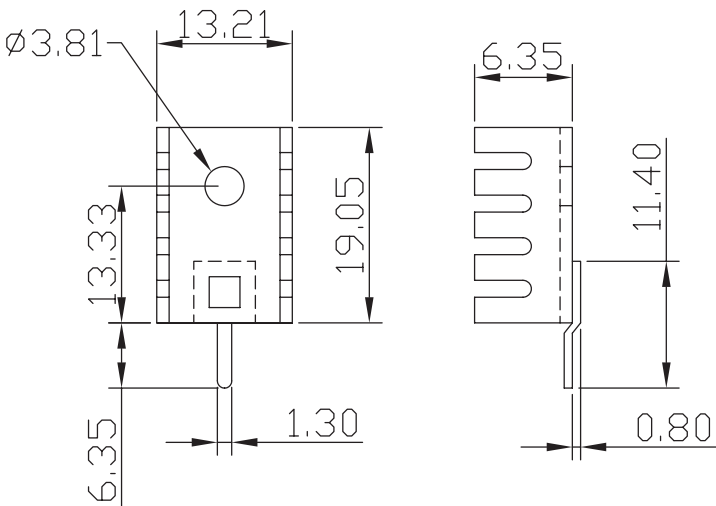


MECHANICAL DRAWING

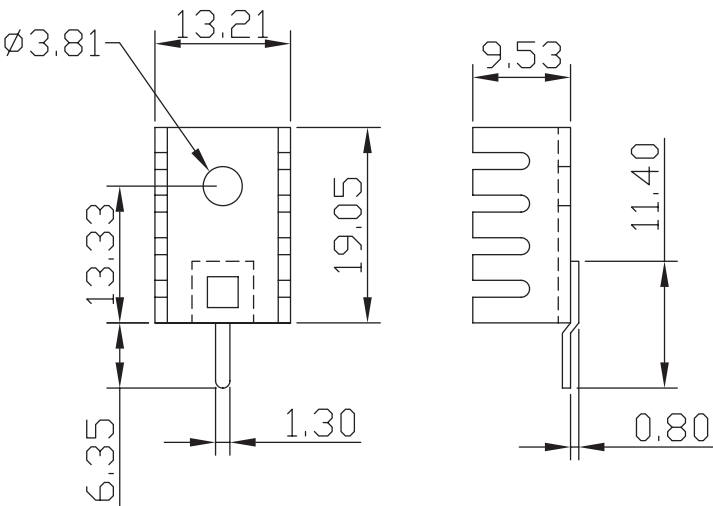
units: mm  
tolerance: ±0.5 mm

|              |                                                                            |
|--------------|----------------------------------------------------------------------------|
| MATERIAL     | AL1050                                                                     |
| FINISH       | black anodized                                                             |
| THICKNESS    | 1.2 mm                                                                     |
| PIN MATERIAL | brass                                                                      |
| PIN PLATING  | tin                                                                        |
| WEIGHT       | HSS-B20-0635H: 1.5 g<br>HSS-B20-0635H-01: 1.7 g<br>HSS-B20-0635H-02: 2.0 g |

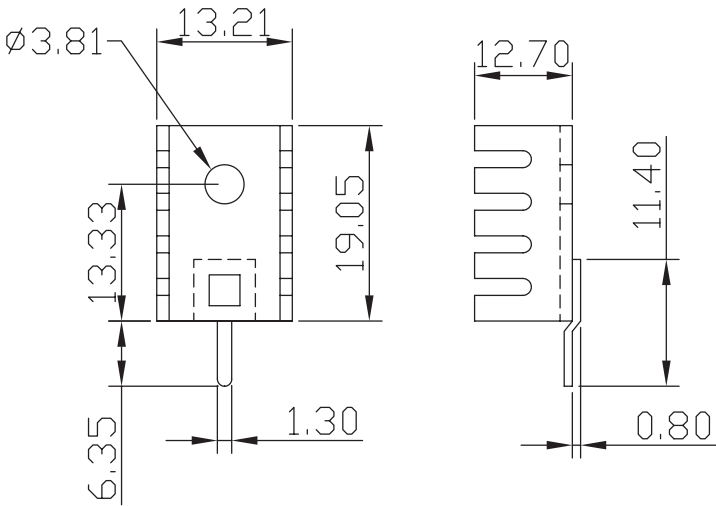
HSS-B20-0635H



HSS-B20-0635H-01



HSS-B20-0635H-02



REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 03/29/2017 |
| 1.01 | brand update                      | 02/13/2020 |
| 1.02 | logo, datasheet style update      | 08/05/2022 |
| 1.03 | CUI Devices rebranded to Same Sky | 09/12/2024 |

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



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