

# CSM Series

## Board Mount Heat Sink For TO-220 Devices



The economically priced CSM Series is suitable for use with TO-220 devices found in active components as well as power resistors. With surface areas ranging from 1188 Sq. mm to 6645 Sq. mm, the CSM family comes in 5 configurations, all of them with Black Anodized surface treatment. These heatsinks

offer a range of thermal performance from 18.0 to 9.8 C/W. Each device offers solder able mounting feet and anywhere from 1, 2 or 3 mounting holes are available for convenient device attachment.

### SERIES SPECIFICATIONS

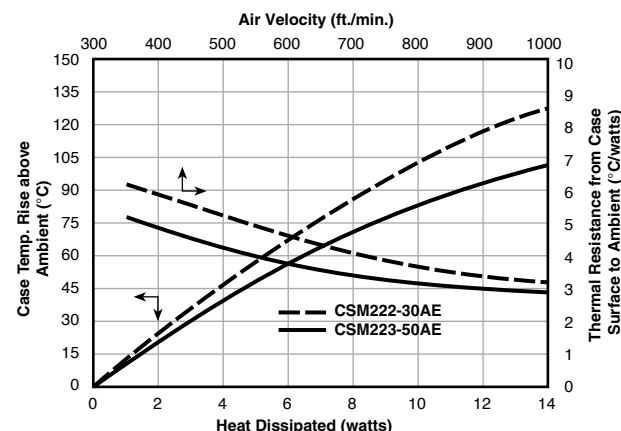
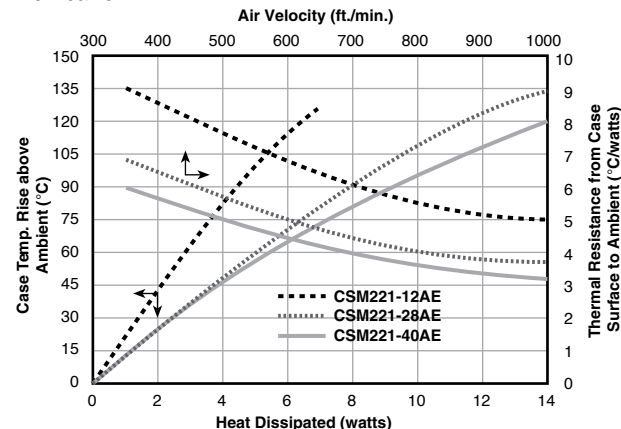
| Heatsink Part Number | Surface Area (in <sup>2</sup> / mm <sup>2</sup> ) | Weight (oz / g) | Length L (mm) | Thermal Res.* (°C/W) |
|----------------------|---------------------------------------------------|-----------------|---------------|----------------------|
| CSM221-12AE          | 1.84 / 1,188                                      | 0.13 / 3.7      | 12            | 18.0                 |
| CSM221-28AE          | 4.30 / 2,772                                      | 0.3 / 8.5       | 28            | 12.8                 |
| CSM221-40AE          | 6.14 / 3,960                                      | 0.43 / 12.2     | 40            | 12.1                 |
| CSM222-30AE          | 6.25 / 4,029                                      | 0.5 / 14.2      | 30            | 11.3                 |
| CSM223-50AE          | 10.30 / 6,645                                     | 0.6 / 17.0      | 50            | 9.8                  |

\*Free convection at 10 watts dissipation

### CHARACTERISTICS

#### Heat Dissipation

Heat dissipation is the total for ALL DEVICES attached to the heat sink



**Heat Sink** Aluminum Alloy 6063-T5 or Equivalent with either degreased or black anodized finish.

**Solder Foot** Cold-rolled Steel, surface tin plated.

**Interface Thermal Resistance** for improvement, use thermal joint compound, 0.005 Grafoil (TGon 800 by Laird), or phase change material (Hi-Flow by Bergquist)

**Insulator** (Optional) Sil-Pad 900-S, K6 800-S and K10 by Bergquist

(continued)

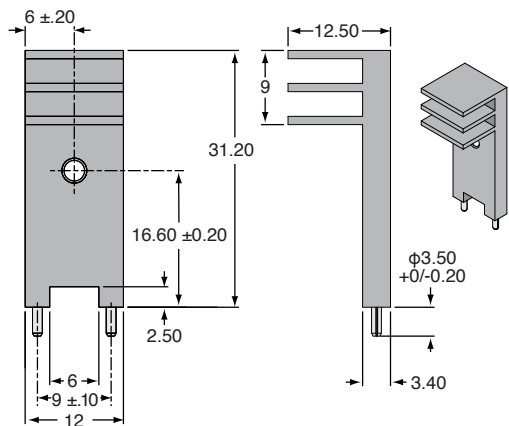
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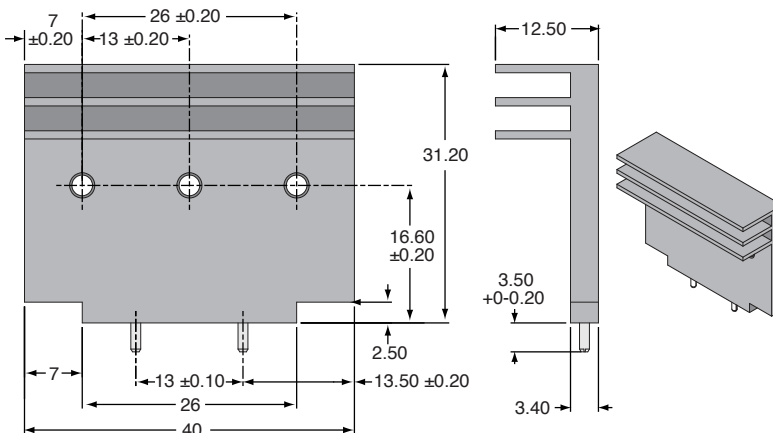
### DIMENSIONS

Dimensions in mm; M3\*0.5P thread Tapping. JIS-2b standard chamfer 0.3m

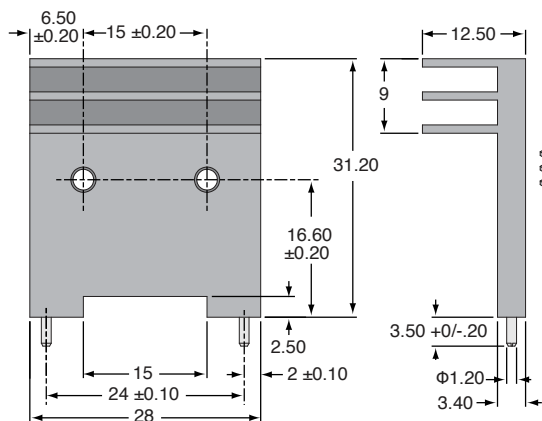
**CSM221-12AE**



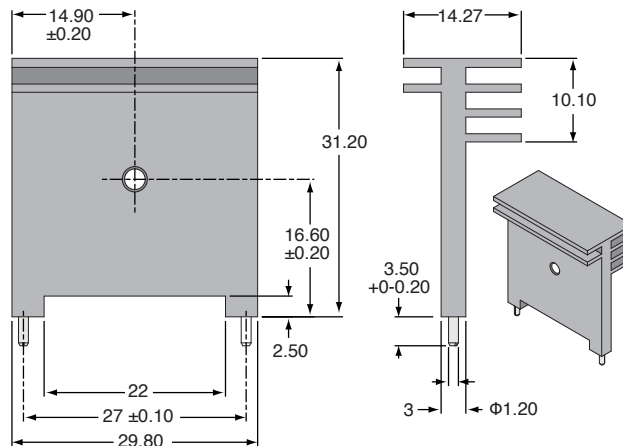
**CSM221-40AE**



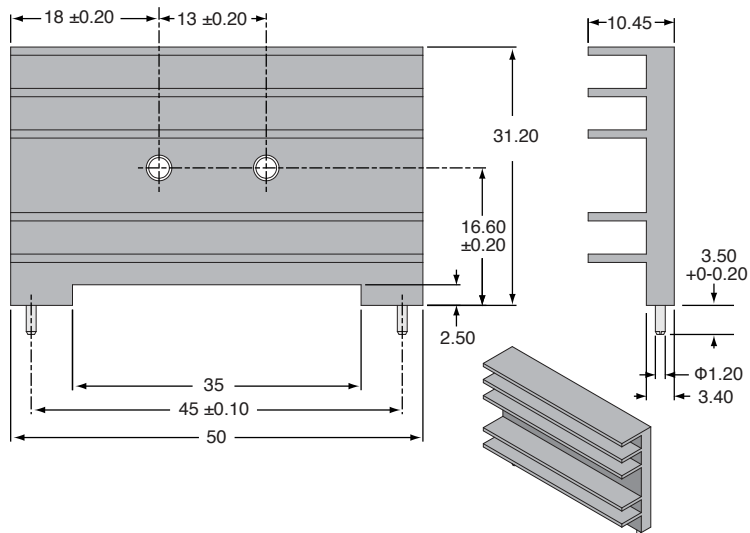
**CSM221-28AE**



**CSM222-30AE**



**CSM223-50AE**



### HOW TO ORDER

RoHS Compliant

**C S M 2 2 1 - 1 2 A E**

Series      Extrusion type      Extrusion width      Black anodized