



Smart Heatsinks®, Inc. introduces the 100 and 200 series, patented (US Pat. No. 7,151,669), high performance, low cost, configurable, scalable and compact heat sink with matrix clip system for TO-220, TO-247, TO-264 and other standard packages. This type powerful heat sink provides easiest assembly, largest surface areas, smallest space occupation and all-in-one solution. The power dissipations can be easily increased simply by extending the fin height on each side of the heat sink, while keeping the heat sink height and PCB layout the same. It is the ideal type of heat sink for high power density and small size (1U or 2U) electronic packaging with forced convection cooling.

## FEATURES AND BENIFITS

- Minimum assembly cost and labor**  
Spring Clips make the mounting holes and fasteners obsolete in assembly operations & reduce costs.
- Maximum Thermal Transfer**  
Maximum surface area per unit volume, efficient cooling fins & consistent mounting force reduces thermal resistance
- Maximum Repeatability**  
Constant spring force over repeated assembly/disassembly
- Maximum Reliability**  
Resilient spring action locks electronic component in place. Fewer parts in assembly and no fasteners and washers required. Prevent short circuit by eliminating metal particles generated from hardware or thread tapping
- Design Flexibility**  
Maximum flexibility for dynamic device locations and power up-grading. *“Configure-to-Fit”* & *“Scale to Meet”* give designers total freedom to configure heat sink to fit their packaging designs and to scale the heat sink to meet their power dissipations.

## SPECIFICATOINS

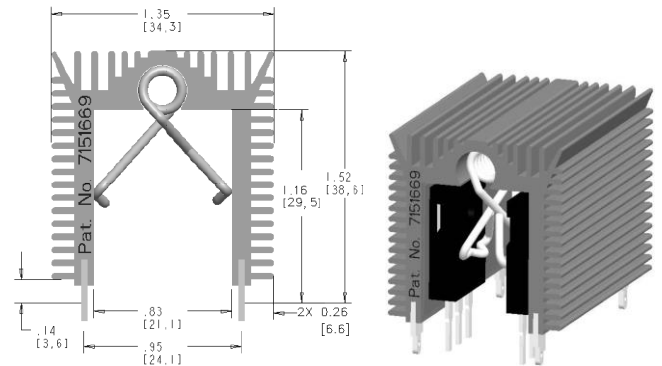
**Heat Sink:** Aluminum Alloy 6063-T5 or Equivalent with either degreased or black anodized finish.

**Spring Clip:** Music Wire, Per ASTM A228 with bright nickel plating

**Solder Foot:** Cold-rolled Steel, Per ASTM A-366 with pure tin over copper strike. RoSH compliant.

**Insulator (Optional):** Sil-Pad 900-S, K6 800-S and K10. The thickness of the insulating material not to exceed 10 mil (0.01”).

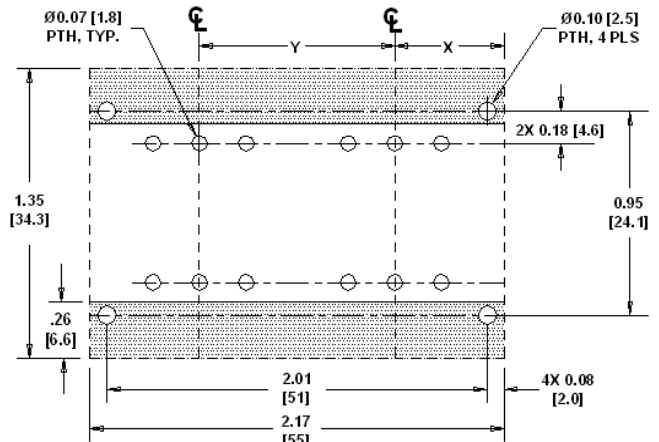
## MC102-T247-34-55 FOR TO-220 & TO-247, etc



Heat Sink Part Number	Surface Area (in <sup>2</sup> / mm <sup>2</sup> )	Weight (oz/g)	Thermal* Resistance
MC102-T247-34-55-D	45/29,097	2.2/63	5.9 °C/w
MC102-T247-34-55-B	45/29,097	2.2/63	5.2 °C/w

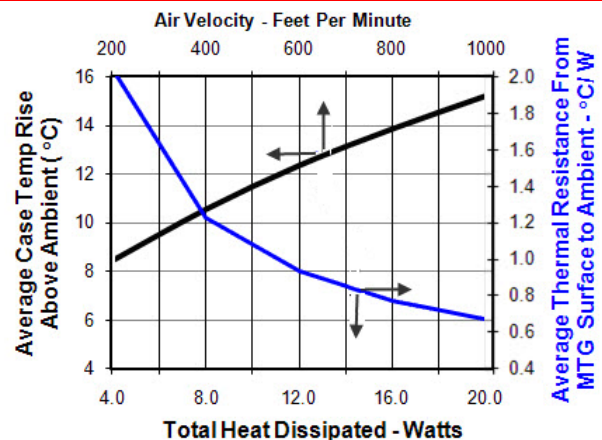
\* Free convection @18 Watts

## LAND PATTERN



X & Y ARE USER'S DEFINED PARAMETERS

## THERMAL PERFORMANCE



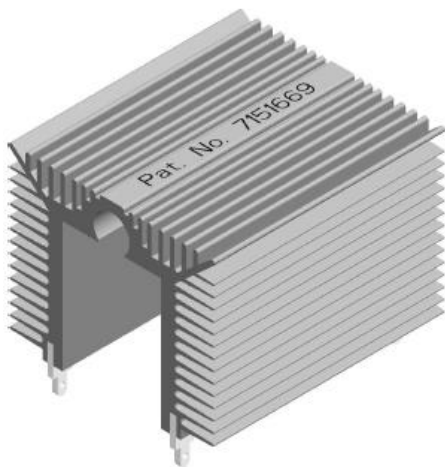
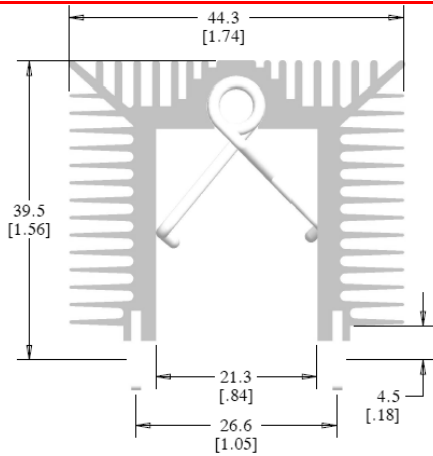


**Smart Heatsinks**  
Unlike Any Others

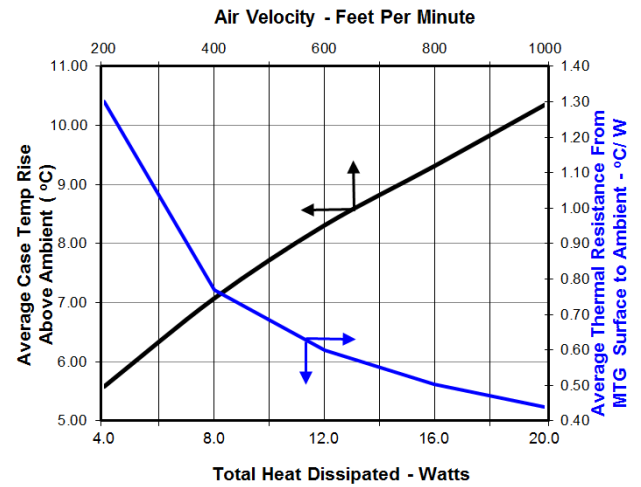
**100/200 Series Configurable Heat Sinks**  
For TO-264, TO-247, TO-220 & Others



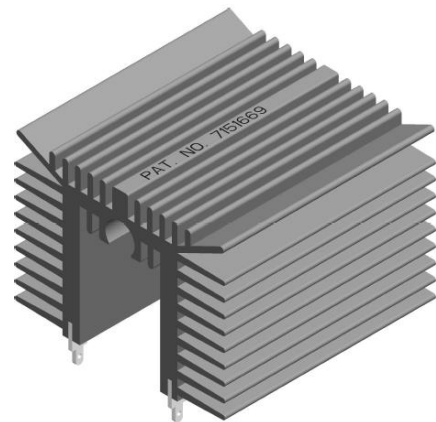
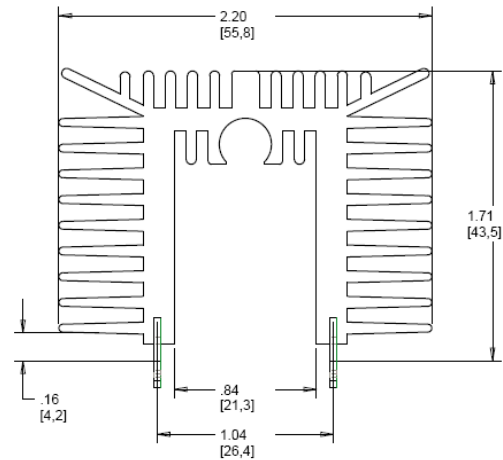
**MC102-T264-44-55 FOR TO-264 & TO-247, etc.**



**THERMAL PERFORMANCE**



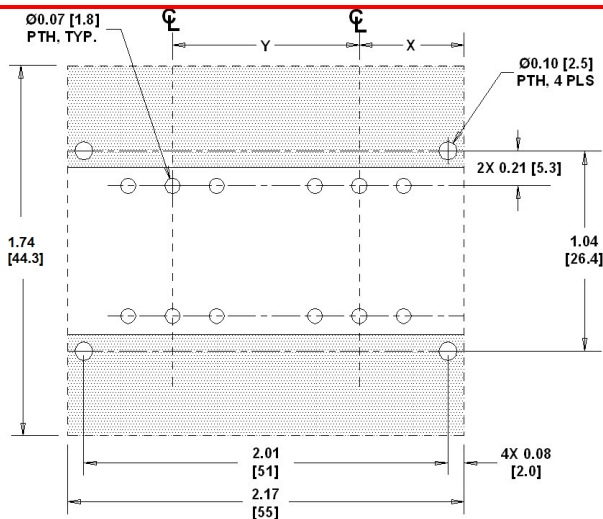
**MC102-T264-56-55 FOR TO-264 & TO-247, etc.**



Heat Sink Part Number	Surface Area (in <sup>2</sup> / mm <sup>2</sup> )	Weight (oz/g)	Thermal Resist.*
MC102-T264-44-55-D	69 / 44,502	2.7 / 77	4.2 °C/w
MC102-T264-44-55-B	69 / 44,502	2.7 / 77	3.7 °C/w

\* Free convection @18 Watts

**LAND PATTERN**



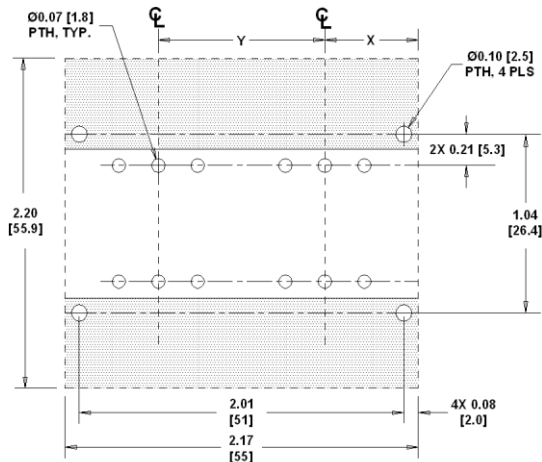
X & Y ARE USER'S DEFINED PARAMETERS

Heat Sink Part Number	Surface Area (in <sup>2</sup> / mm <sup>2</sup> )	Weight (oz/g)	Thermal Resist.*
MC102-T264-56-55-D	76 / 49,218	4.7 / 134	3.6 °C/w
MC102-T264-56-55-B	76 / 49,218	4.7 / 134	3.0 °C/w

\* Free convection @18 Watts

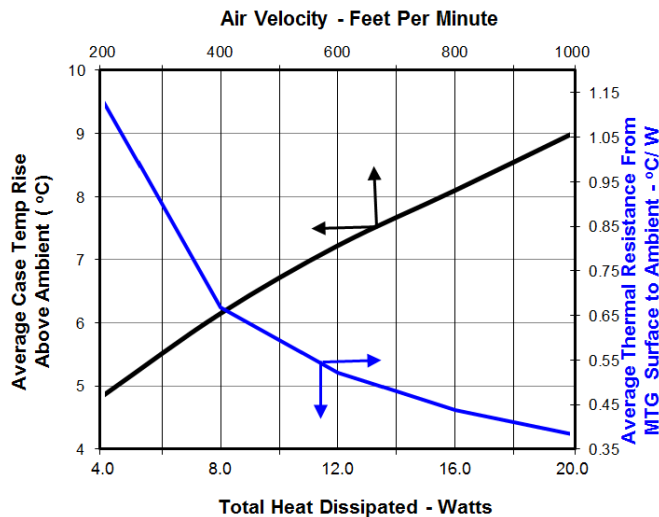


## LAND PATTERN



X & Y ARE USER'S DEFINED PARAMETERS

## THERMAL PERFORMANCE



### Notes:

- [1] Heat sink height refers to the height above PCB
- [2] Heat sink length can be customized without paying tooling charges, but need to meet MOQ.
- [3] Heat sink width can be customized to increase fin height, tooling charge needs to be paid and MOQ needs to be met.
- [4] Sil-Pad 900S (0.009" thick, 1.6 W/M K thermal conductivity) used between the component and heat sink

## STANDARD PART NUMBER FOR MC100 SERIES HEATSINKS

Part Number	Descriptions	Packing
MC102-T247-34-55-D	M-Heatsink, degreased	Bulk
MC102-T247-34-55-B	M-Heatsink, black anodized	Bulk
MC102-T264-44-55-D	M-Heatsink, degreased	Bulk
MC102-T264-44-55-B	M-Heatsink, black anodized	Bulk
MC102-T264-56-55-D	M-Heatsink, degreased	Bulk
MC102-T264-56-55-B	M-Heatsink, black anodized	Bulk
MC101-T247-34-27-D	M-Heatsink, degreased	Bulk
MC101-T247-34-27-B	M-Heatsink, black anodized	Bulk
MC101-T264-44-27-D	M-Heatsink, degreased	Bulk
MC101-T264-44-27-B	M-Heatsink, black anodized	Bulk
MC101-T264-56-27-D	M-Heatsink, degreased	Bulk
MC101-T264-56-27-B	M-Heatsink, black anodized	Bulk

## HEAT SINK CONFIGURATION INFORMATION

