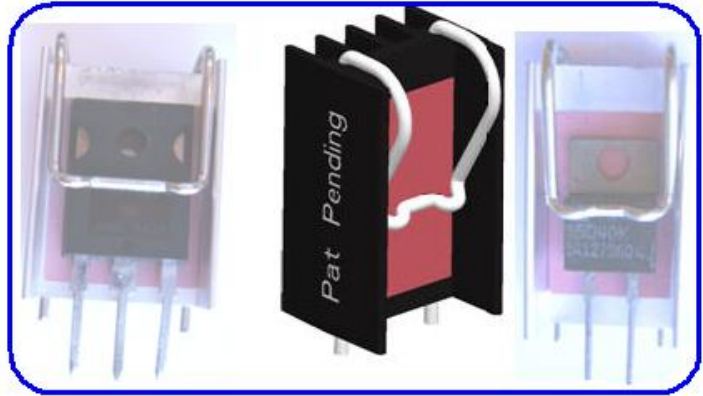


## W-series HEATSINKS UNIVERSAL MOUNTABLE

**Smart Heatsinks®, Inc.** introduces an innovation in SMT or THMT heat sinks to meet the needs of newer higher power semiconductors. The heat sinks' unique design (Patent Pending) combines the tin plated solderable integral spring clip with an extruded aluminum anodized or painted heat sink body to configure these heat sinks to be universal mountable onto PCB. Unlike any others, this type of heat sink provides ease of assembly and **all-in-one solution (one part does all)**. It can be



configured to mount single or multiple devices, such as TO-220, TO-247, TO-264, TO-218 and D-Pak series power devices with either natural or forced convention cooling.

### FEATURES AND BENEFITS:

- **Minimum assembly cost and labor**  
Spring clip and auto-align feature makes fasteners and fixtures obsolete in assemblies.
- **Maximum Repeatability**  
Clamping force on devices by resilient spring can be loaded and unloaded repeatedly without degrading the clamping force.
- **Maximum Resistance to Shock & Vibration**  
Light weight and resilient spring clip locks electronic component in place to provide maximum resistance to shock and vibration
- **Maximum Reliability**  
Resilient spring action locks electronic component in place and few parts in assembly. Prevent short circuit by eliminating metal particles generated from hardware or thread tapping.

### APPLICATIONS:

- *Power Suppliers*
- *Telecommunications*
- *Motor controls*
- *Medical Equipment*
- *Avionic Electronic*
- *Military Electronic*
- *Consumer Products*
- *Green Energy Products*

## MATERIALS

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

**Spring Clip:** Music Wire, Per ASTM A228 with Tin plating, 5.1 µm thick min. over 1.0 µm min. copper undercoating.

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

**Mounting:** Vertical or Horizontal

**Thru-Hole Solder:** Pin Protrusion MEETS CLASS 2 OR 3 OF IPC 610 STD

**Clip Force:** Clip Force 13.2 lbf min.



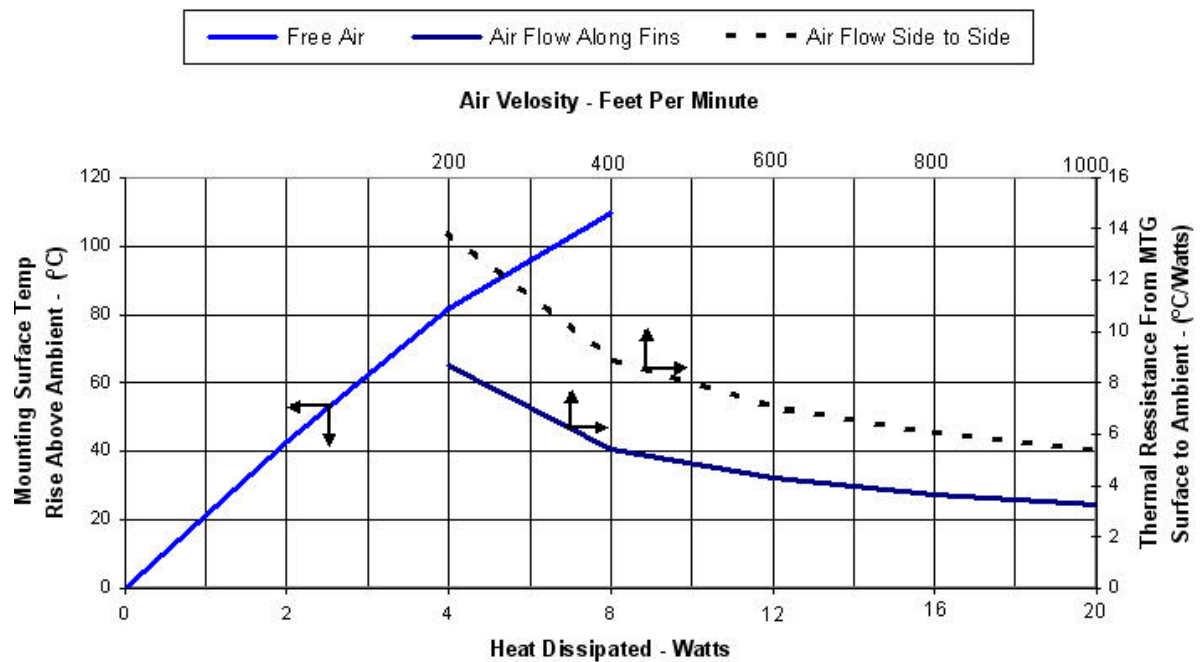
**Smart Heatsinks**  
Unlike Any Others

SHS UNIVERSAL MOUNTABLE,  
AUTO-ALIGN ALL-IN-ONE HEAT  
SINKS for TO-220, TO-247 & TO-264

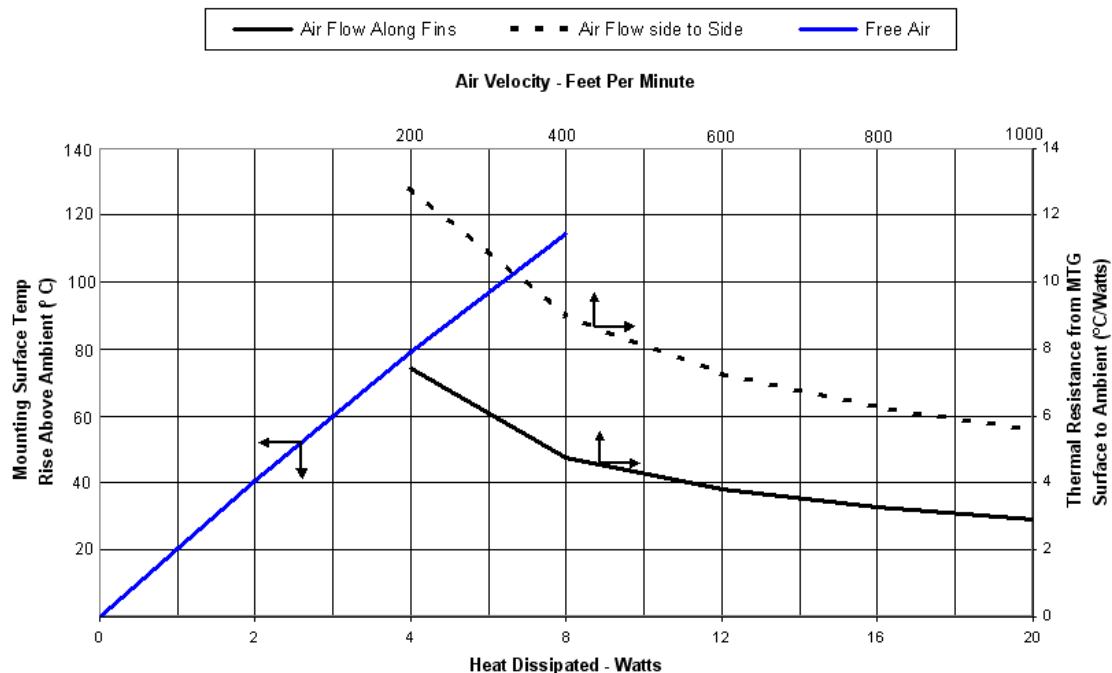


## PERFORMANCE:

### WV-T220-101



### WV-T247-101





**Smart Heatsinks**  
Unlike Any Others

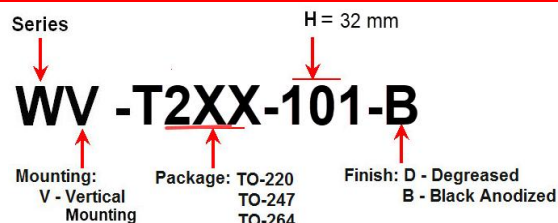
SHS UNIVERSAL MOUNTABLE,  
AUTO-ALIGN ALL-IN-ONE HEAT  
SINKS for TO-220, TO-247 & TO-264



## SPECIFICATIONS

Heat Sink Part Number	Surface Area (in <sup>2</sup> / mm <sup>2</sup> )	Weight (oz/g)	Thermal Resistance*
WV-T220-101-D	6.5 / 4,194	0.35 / 10	12 °C/W
WV-T220-101-B	6.5 / 4,194	0.35 / 10	13 °C/W
WV-T247-101-D	8.4 / 5,419	0.42 / 12	11 °C/W
WV-T247-101-B	8.4 / 5,419	0.42 / 12	12 °C/W

## CONFIGURATION INFO

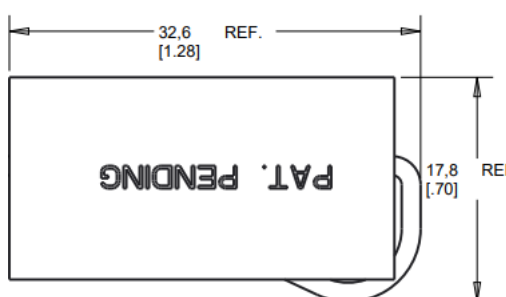
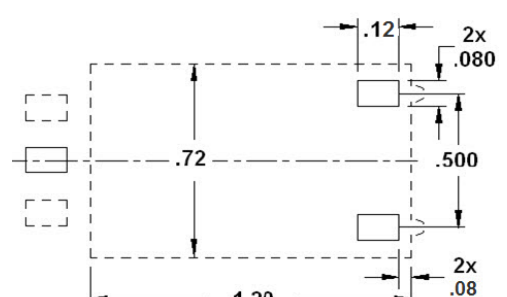


NOTE: TO-264 & TO-247 use the same heat sink

## MECHANICAL OUTLINE:

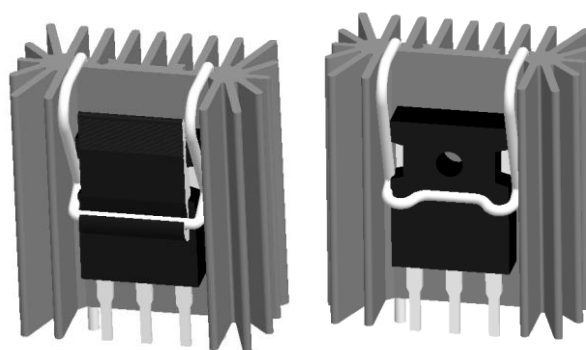
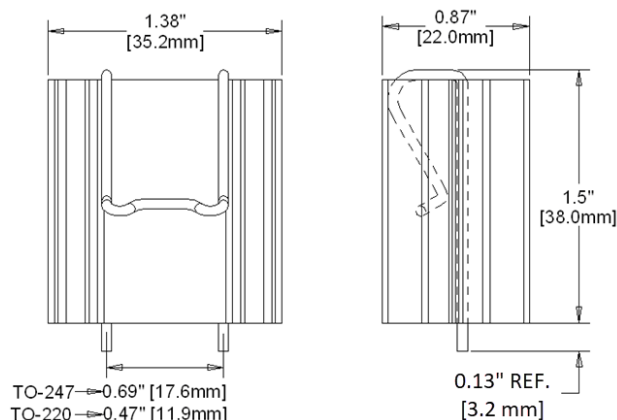
## FOOTPRINTS:

WV-T247-101 or WV-T264-101	
<b>Through-hole Mounting (inch)</b> 	<b>Recommended PCB Footprint w/sil-pad</b> 
<b>Surface Mounting</b> 	<b>Recommended PCB Footprint</b> 
WV-T220-101	
<b>Through-hole Mounting (inch)</b> 	<b>Recommended PCB Footprint w/sil-pad</b> 

Surface Mounting	Recommended PCB Foot-print
	

## Universal Combo-Heatsinks

Smart Heatsinks introduces a universal mount Series (patent pending) combo heatsink which “kills three birds with one stone”. One heat sink can fit TO-220 or TO-247 or TO-264 package with the option of using C or U clip.



With a C-clip

With a U-clip

SPECIFICATIONS				CONFIGURATION INFO		
Heat Sink Part Number	Surface Area (in <sup>2</sup> / mm <sup>2</sup> )	Weight (oz/g)	Thermal Resistance*	Series	Clip Type: U - U-clip C - C-clip	Height (mm)
WV-UT4-138-D	21 / 13,579	5.9 / 27	5.0 °C/W	<b>WV - UT4-138 - B</b>		
WV-UT4-138-B	21 / 13,579	5.9 / 27	4.0 °C/W			
WV-CT4-138-D	21 / 13,579	6.4 / 29	5.0 °C/W			
WV-CT4-138-B	21 / 13,579	6.4 / 29	4.5 °C/W			
				Mounting: V - Vertical Mounting	Package: T2 - TO-220 T4 - TO-247 T6 - TO-264	Finish: D - Degreased B - Black Anodized C - Clear Chromate Y - Yellow Chromate

Free Convection @20 Watts

## THERMAL PERFORMANCE

## LAND PATTERN

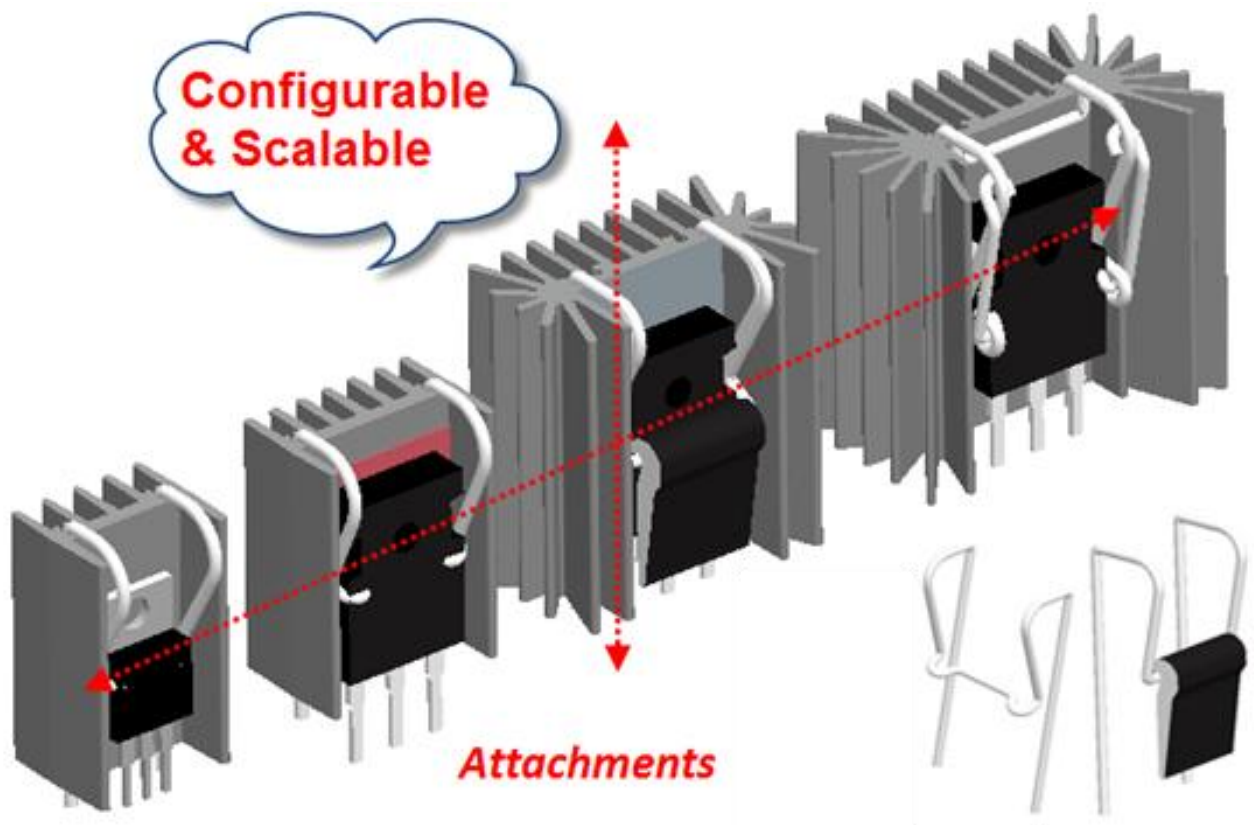
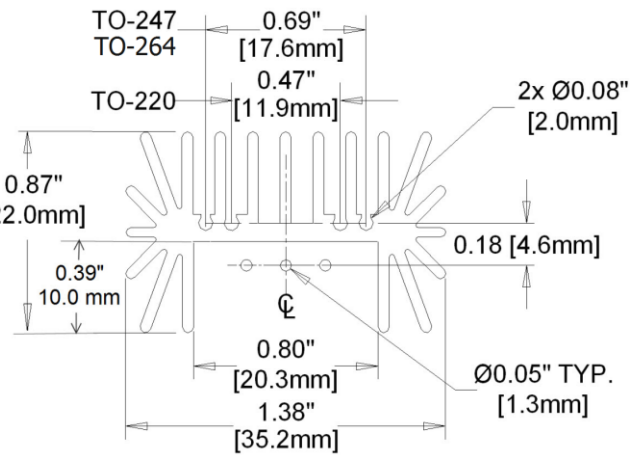
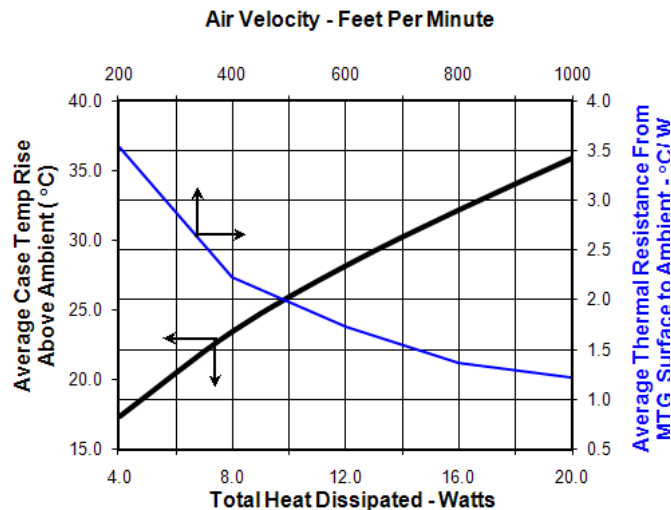


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**TO-247 w/Sil-pad**



**Smart Heatsinks**

Unlike Any Others

**SHS UNIVERSAL MOUNTABLE,  
AUTO-ALIGN ALL-IN-ONE HEAT  
SINKS for TO-220, TO-247 & TO-264****ORDERING INFORMATION:**

<b>Part Number</b>	<b>Descriptions</b>	<b>Packaging</b>
WV-T220-101-D	Heat sink for TO-220, degreased	Bulk
WV-T220-101-B	Heat sink for TO-220, black anodized	Bulk
WV-T247-101-D	Heat sink for TO-247and TO-264, degreased	Bulk
WV-T247-101-B	Heat sink for TO-247and TO-264, black anodized	Bulk

<b>Part Number</b>	<b>Descriptions</b>	<b>Packaging</b>
WV-UT2-138-D	Heatsink for TO-220, degreased, with U-clip	Bulk
WV-UT2-138-B	Heatsink for TO-220, black anodized, with U-clip	Bulk
WV-CT2-138-D	Heatsink for TO-220, degreased, with C-clip	Bulk
WV-CT2-138-B	Heatsink for TO-220, black anodized, with C-clip	Bulk
WV-UT4-138-D	Heatsink for TO-247, degreased, with U-clip	Bulk
WV-UT4-138-B	Heatsink for TO-247, black anodized, with U-clip	Bulk
WV-CT4-138-D	Heatsink for TO-247, degreased, with C-clip	Bulk
WV-CT4-138-B	Heatsink for TO-247, black anodized, with C-clip	Bulk
WV-UT6-138-D	Heatsink for TO-264, degreased, with U-clip	Bulk
WV-UT6-138-B	Heatsink for TO-264, black anodized, with U-clip	Bulk
WV-CT6-138-D	Heatsink for TO-264, degreased, with C-clip	Bulk
WV-CT6-138-B	Heatsink for TO-264, black anodized, with C-clip	Bulk