

## BOARD LEVEL POWER SEMICONDUCTOR HEAT SINKS

### 286 SERIES

### ALUMINUM AND COPPER LOW-COST WAVE-SOLDERABLE HEAT SINKS

TO-220

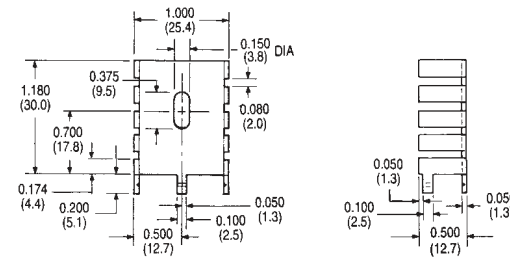


Efficient heat removal at low cost can be achieved by inserting the **286 Series** directly into pre-drilled circuit boards; scored mounting tabs may be bent after insertion to provide added stability. The **286 Series** can be wave-soldered directly to the board. See also 286DB Series on page 55.

Standard P/N	Height Above PC Board in. (mm)	Maximum Footprint in. (mm)	Material	Thermal Performance at Typical Load		Weight lbs. (grams)
				Natural Convection	Forced Convection	
286-AB	1.190 (30.2)	1.000 (25.4) x 0.500 (12.7)	Aluminum, Anodized	58°C @ 4W	7.4°C/W @ 200 LFM	0.0085 (3.86)
286-CBTE	1.190 (30.2)	1.000 (25.4) x 0.500 (12.7)	Copper, Black	58°C @ 4W	7.4°C/W @ 200 LFM	0.0250 (11.34)
286-CTE	1.190 (30.2)	1.000 (25.4) x 0.500 (12.7)	Copper, Tinned	58°C @ 4W	7.4°C/W @ 200 LFM	0.0250 (11.34)

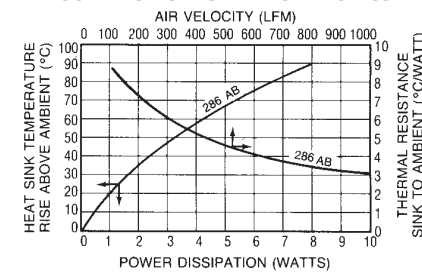
**Material:** 286-AB style (aluminum, black anodized), 286-CBT style (copper, black paint tin tabs), and 286-CT style (copper, tinned).

#### MECHANICAL DIMENSIONS



Dimensions: in. (mm)

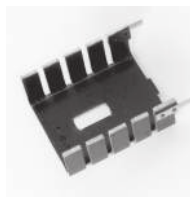
#### NATURAL AND FORCED CONVECTION CHARACTERISTICS



TO-220

### WAVE-SOLDERABLE LOW-COST HEAT SINKS

### 287 SERIES

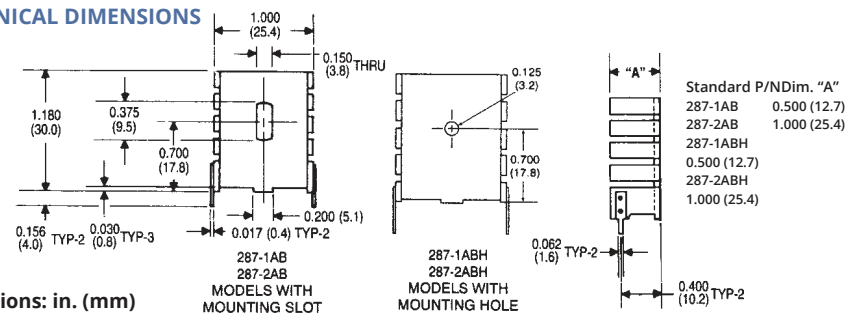


Mount these cost-effective TO-220 heat sinks vertically into pre-drilled printed circuit boards. Soldered, pre-tinned tabs can be wavesoldered directly to the board. A 0.375 in. (9.5 mm) mounting slot allows for correct positioning of TO-220 and similar semiconductor packages.

Standard P/N		Height Above PC Board in. (mm)	Maximum Footprint "A" in. (mm)	Thermal Performance at Typical Load		Weight lbs. (grams)
Mounting Slot	Mounting Hole			Natural Convection	Forced Convection	
287-1ABE	287-1ABH	1.180 (30.0)	1.000 (25.4) x 0.500 (12.7)	65°C @ 4W	7.8°C/W @ 200 LFM	0.0090 (4.08)
287-2ABE	287-2ABH	1.180 (30.0)	1.000 (25.4) x 1.000 (25.4)	55°C @ 4W	6.4°C/W @ 200 LFM	0.0140 (6.35)

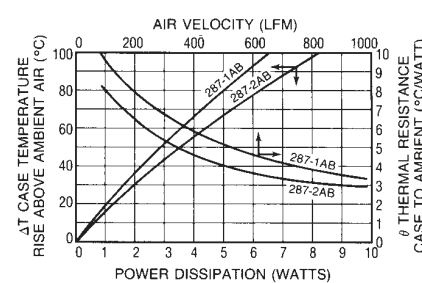
**Material:** Aluminum, Black Anodized

#### MECHANICAL DIMENSIONS



Dimensions: in. (mm)

#### NATURAL AND FORCED CONVECTION CHARACTERISTICS



### 695 SERIES

### SPACE-SAVING HEAT SINKS FOR SMALL STUD-MOUNTED DIODES

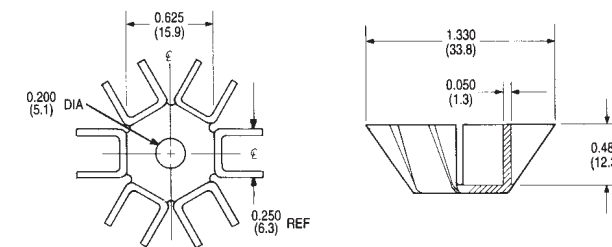
Stud-Mount



Mount and effectively heat sink small stud-mounted diodes with the **695 Series** space-saving heat sink type. Each unit is black anodized aluminum with an 0.200 in. (5.1) dia. mounting hole centered in the base. The folded fin design provides good heat dissipation for use where height is limited above the printed circuit board or base plate.

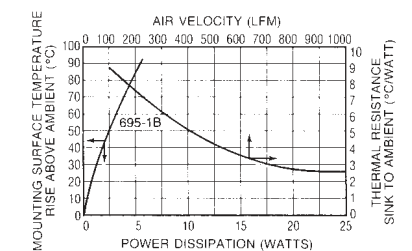
Standard P/N	Maximum Width in. (mm)	Height in. (mm)	Thermal Performance at Typical Load		Weight lbs. (grams)
			Natural Convection	Forced Convection	
695-1B	1.330 (33.8)	0.530 (13.7)	72°C @ 4.0W	5.2°C/W @ 400 LFM	0.008 (4.0)

#### MECHANICAL DIMENSIONS



Dimensions: in. (mm)

#### NATURAL AND FORCED CONVECTION CHARACTERISTICS



### 285 SC AND 330 SC SPEEDCLIPS™

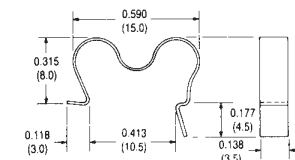
### 285 & 330 SERIES



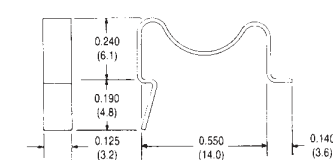
SpeedClips™ employ a locking safety tab for mounting. Must be ordered separately for these heat sink series. Use these SpeedClips™ with our 237, 240, and 252 Series heat sinks for the lowest production assembly time and cost. Order one SpeedClip™ for each heat sink purchased. Must be purchased with heat sinks.

Standard P/N	Nominal Installed Loading Force	For Use With Series	Material	Weight lbs. (grams)
285 SC	10 lbs	232, 237, 240, 252, 667	Carbon Steel	0.00053 (0.24)
330 SC	4 lbs	232, 237, 240, 252, 667	Stainless Steel	0.00074 (0.34)

#### MECHANICAL DIMENSIONS



Speed Clip 330 SC  
4 lb (17.8N)  
Nominal Force Installed



Speed Clip 285 SC  
10 lb (44.5N)  
Nominal Force Installed

Dimensions: in. (mm)