



**Smart Heatsinks**  
Unlike Any Others

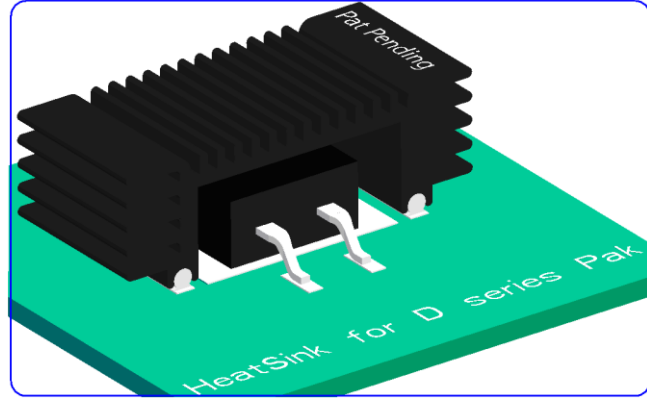
SHS SURFACE MOUNT HEAT  
SINK for D, D2 & D3 Pak



## SMART HEATSINKS SURFACE MOUNT HEAT SINKS

Smart Heatsinks® introduces an innovation in SMT compatible heat sinks to meet the needs of newer higher power SMT semiconductors. The heat sinks' unique design (Patent Pending) combines the technology of automatically assembling the tin plated solderable wires/rods with that of extruded aluminum anodized or painted heat sink body to configure these SMT heat sinks.

Rods/wires named "Rollers" are mated mechanically to the heat sink body by forging to reduce the interface thermal resistance between the drains & heat dissipation body.



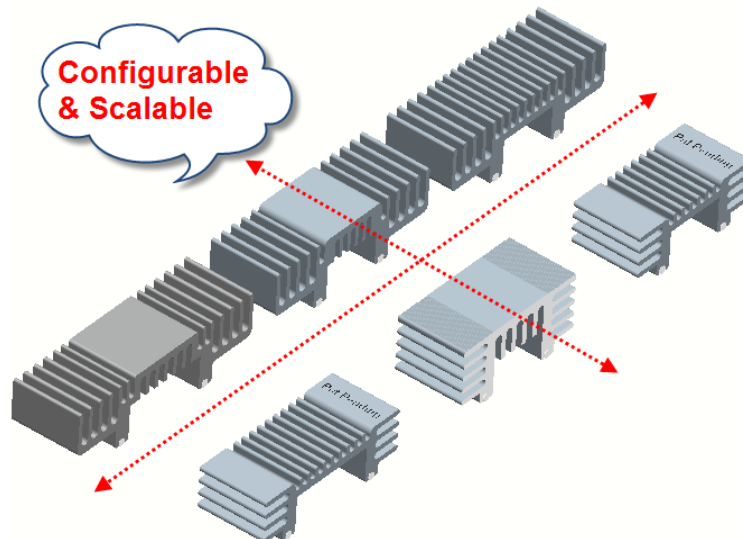
Rods/wires named "Rollers" are mated mechanically to the heat sink body by forging to reduce the interface thermal resistance between the drains & heat dissipation body.

### FEATURES AND BENEFITS:

- Increased thermal performance up to 30% over bright copper heat sinks from improved radiation of the black finish
- Increased surface areas by 3 times therefore thermal performance up to 300% over the aluminum stamped heat sinks on markets
- Unique aluminum extrusion design reduces the heat sink cost versus similar designs utilizing copper
- Light weight aluminum construction allows faster pick and place assembly reducing the manufacturing cycle time
- Radius mounted "Rollers" are designed for maximizing heat transfer from component and to avoid "bottle neck" heat transfer like the Aluminum stamped from Aavid.
- Available in bulk packaging or Tape & Reel

### APPLICATIONS:

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





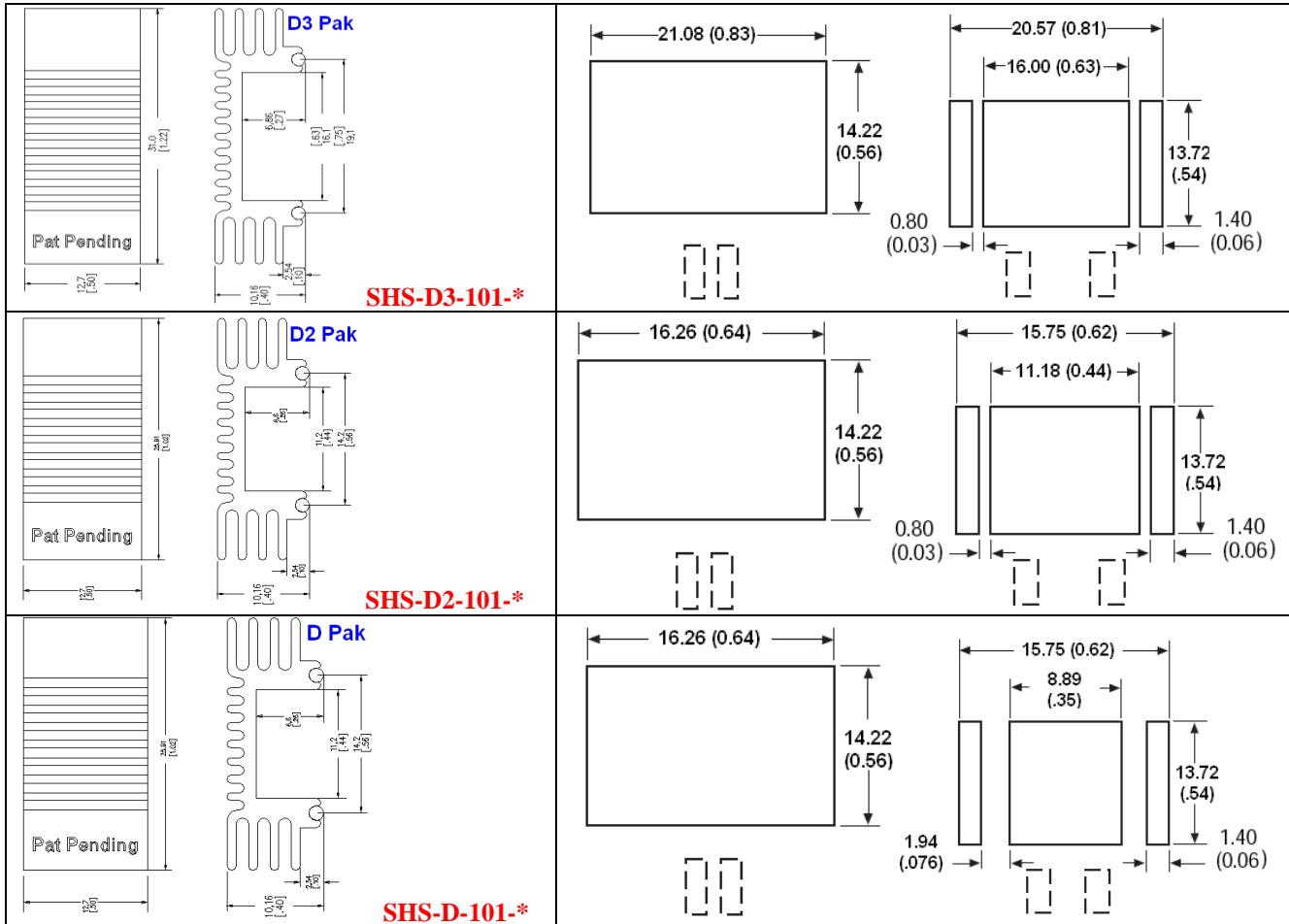
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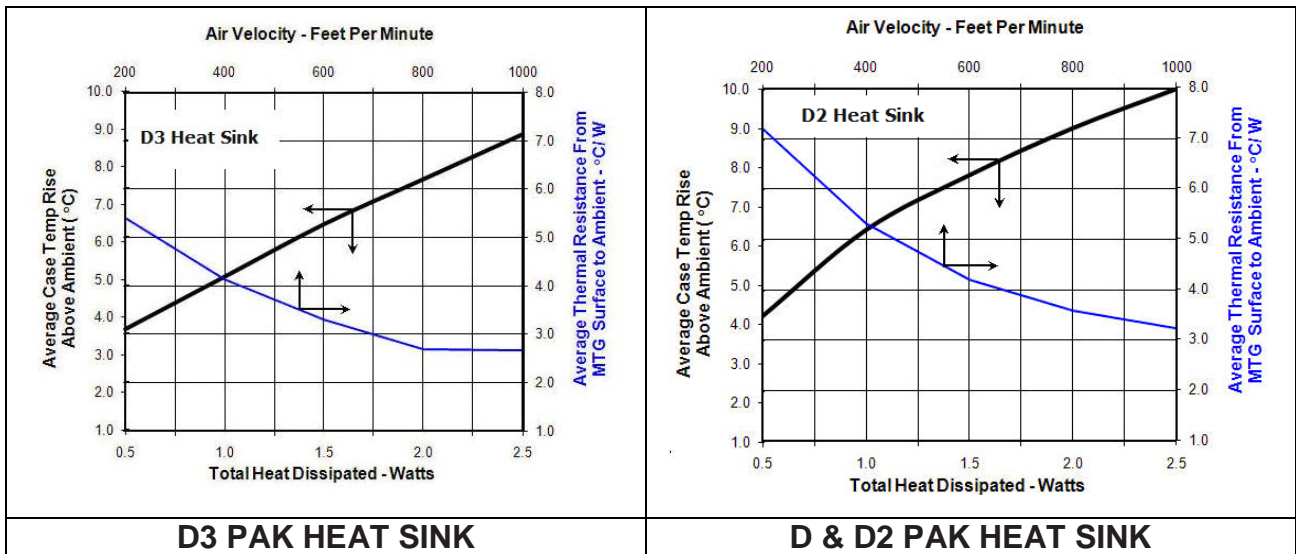


**MECHANICAL OUTLINE:**

**FOOTPRINTS**



**PERFORMANCE:**



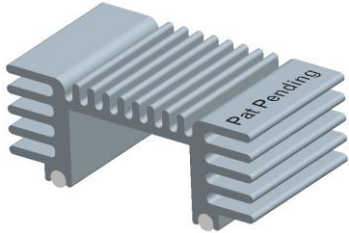



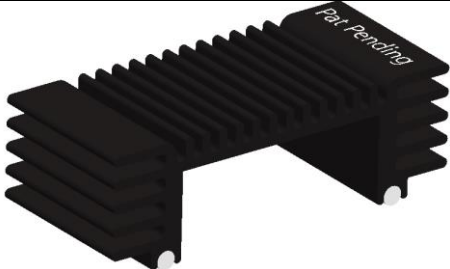
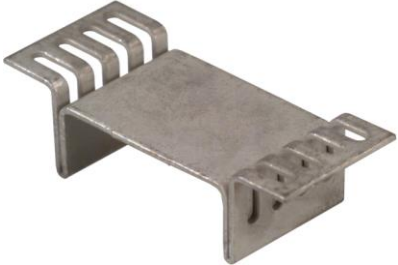
**Heat Sink Comparisons**



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SINK for D, D2 & D3 Pak

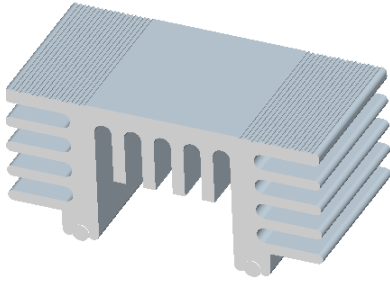


Smart Heatsinks	Comparison	Aavid, Wakefield & others
 <b>D Pak (TO-252) Heat Sink</b>	Vs.	 <b>D Pak (TO-252) Heat Sink</b>
Surface Areas	<b>5 times</b>	Surface Areas
Thermal Performance	<b>Up to 500%</b>	Thermal Performance
Radiation Improvement	<b>Up to 130%</b>	Radiation Improvement
Cost/Watt	<	Cost /Watt
Footprint	>	Footprint
Height	=	Height
 <b>D2 Pak (TO-263) Heat Sink</b>	vs	 <b>D2 Pak (TO-263) Heat Sink</b>
Surface Areas	<b>3 times</b>	Surface Areas
Thermal Performance	<b>Up to 300%</b>	Thermal Performance
Cost/ Watt	<	Cost/ Watt
Footprint	=	Footprint
Height	=	Height
 <b>D3 Pak (TO-268) Heat Sink</b>	Vs.	 <b>D3 Pak (TO-268) Heat Sink</b>
Surface Areas	<b>3 times</b>	Surface Areas
Radiation Improvement	<b>Up to 130%</b>	Radiation Improvement
Thermal Performance	<b>Up to 350%</b>	Thermal Performance
Cost/ Watt	<	Cost/ Watt
Footprint	=	Footprint
Height	=	Height

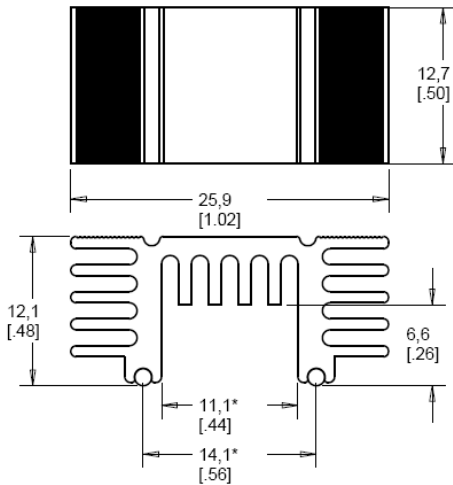
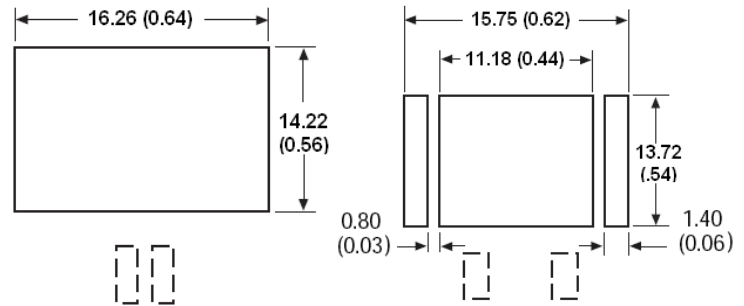


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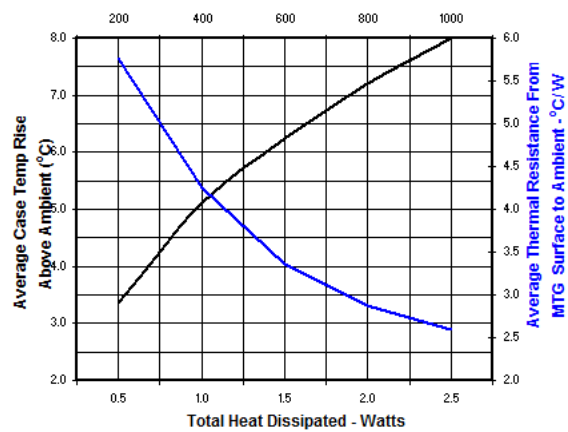
**SHS SURFACE MOUNT HEAT SINK for D, D2 & D3 Pak**



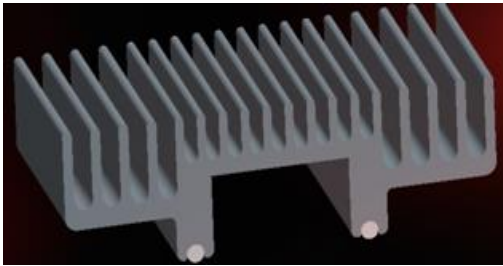
**P/N: SHS-D2-103-\***



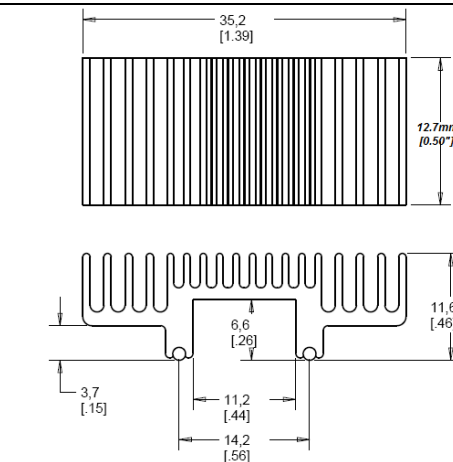
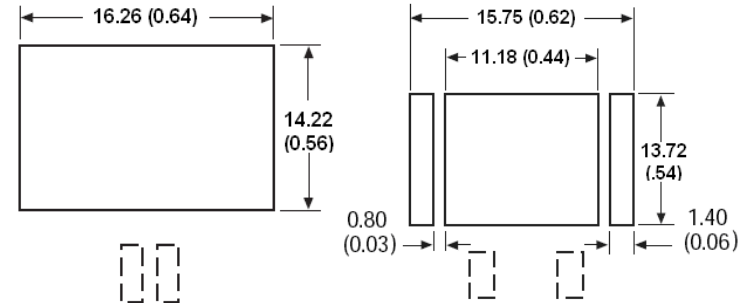
**Thermal Performance for D2 Heatsink**  
Air Velocity - Feet Per Minute



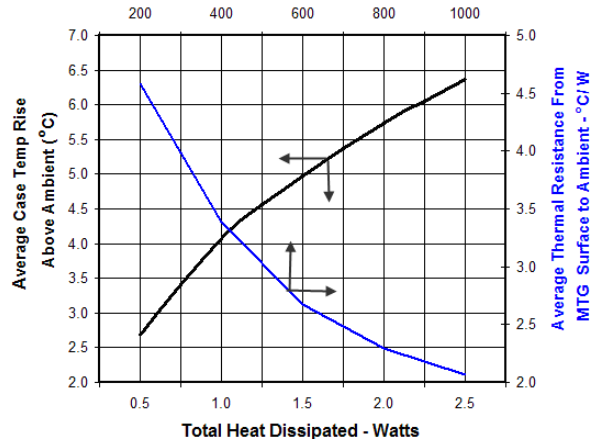
**The 2<sup>nd</sup> generation "Cactus Heat Sink" for D2 Pack**



**P/N: SHS-D2-213-\***



**Air Velocity - Feet Per Minute**

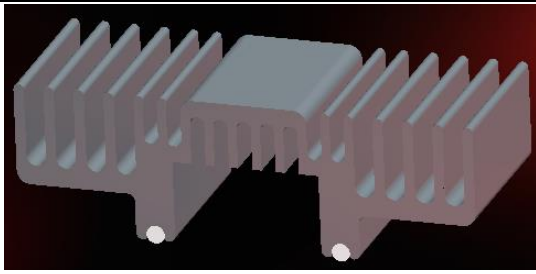




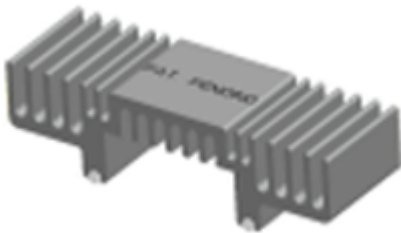
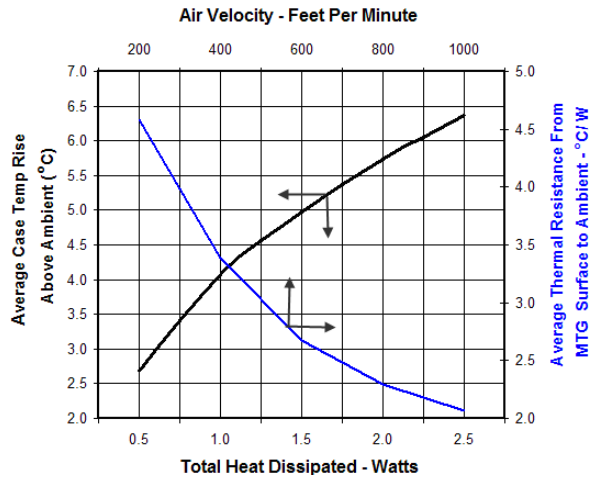
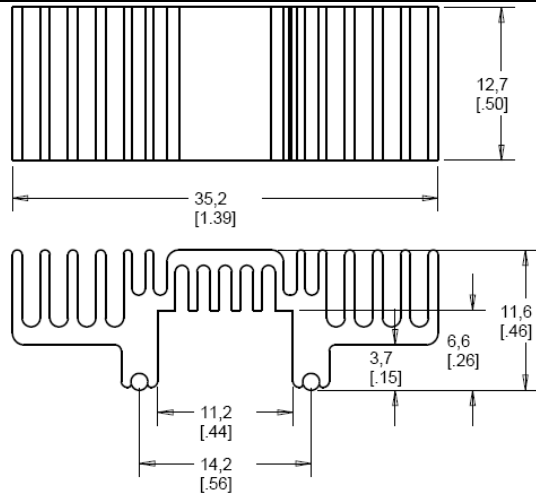
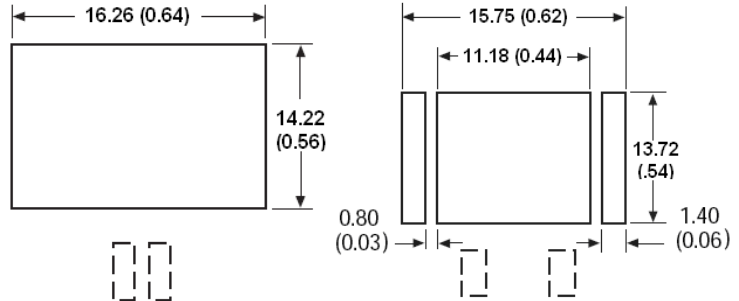
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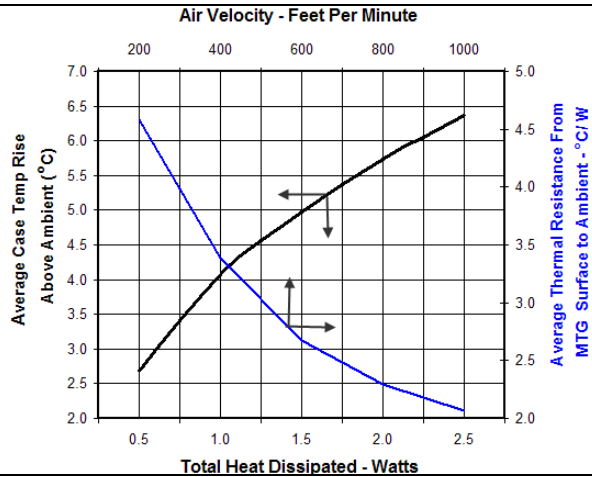
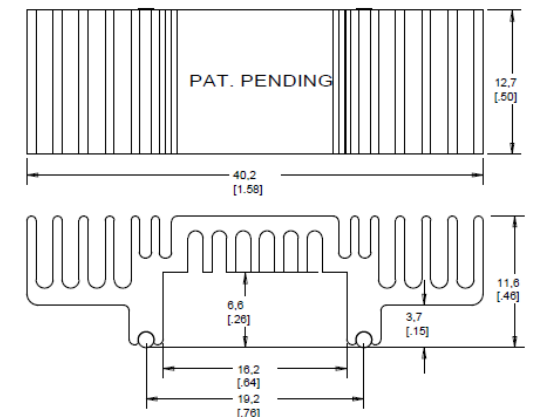
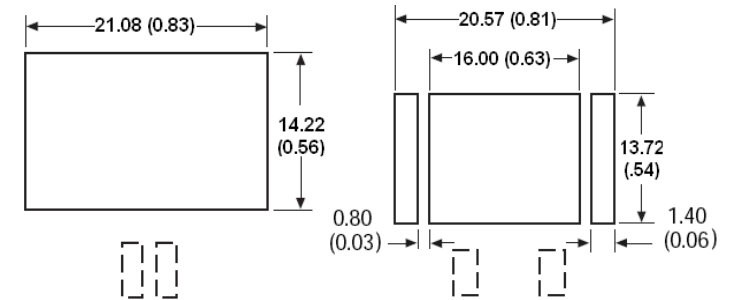
## SHS SURFACE MOUNT HEAT SINK for D, D2 & D3 Pak



**P/N: SHS-D2-313-\***



**P/N: SHS-D3-313-\***



### ORDERING INFORMATION

Smart Heatsinks®, Inc. • 3715 Oak Ridge Cir., Ft. Lauderdale, FL, 33331 • Tel 954-840-3256 • [www.smartheatsinks.com](http://www.smartheatsinks.com)



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**SHS SURFACE MOUNT HEAT  
SINK for D, D2 & D3 Pak**



<b>Part Number</b>	<b>Descriptions</b>	<b>Packaging</b>
SHS-D2-101-D	Heat sink for D or D2 PAK, degreased finish	Bulk
SHS-D2-101-B	Heat sink for D or D2 PAK, black anodized	Bulk
SHS-D2-101-D-TR	Heat sink for D or D2 PAK, degreased finish	13" reel 250/reel
SHS-D2-101-B-TR	Heat sink for D or D2 PAK, black anodized	13" reel 250/reel
SHS-D2-103-D	Heat sink for D or D2 PAK, degreased finish	Bulk
SHS-D2-103-B	Heat sink for D or D2 PAK, black anodized	Bulk
SHS-D2-103-D-TR	Heat sink for D or D2 PAK, degreased finish	13" reel 250/reel
SHS-D2-103-B-TR	Heat sink for D or D2 PAK, black anodized	13" reel 250/reel
SHS-D2-213-D	Heat sink for D or D2 PAK, degreased finish	Bulk
SHS-D2-213-B	Heat sink for D or D2 PAK, black anodized	Bulk
SHS-D2-313-D	Heat sink for D or D2 PAK, degreased finish	Bulk
SHS-D2-313-B	Heat sink for D or D2 PAK, black anodized	Bulk
SHS-D2-313-D-TR	Heat sink for D or D2 PAK, degreased finish	13" reel 250/reel
SHS-D2-313-B-TR	Heat sink for D or D2 PAK, black anodized	13" reel 250/reel
SHS-D3-101-D	Heat sink for D3 PAK, degreased finish	Bulk
SHS-D3-101-B	Heat sink for D3 PAK, black anodized	Bulk
SHS-D3-101-D-TR	Heat sink for D3 PAK, degreased finish	13" reel 250/reel
SHS-D3-101-B-TR	Heat sink for D3 PAK, black anodized	13" reel 250/reel
SHS-D3-313-D	Heat sink for D3 PAK, degreased finish	Bulk
SHS-D3-313-B	Heat sink for D3 PAK, black anodized	Bulk
SHS-D3-313-D-TR	Heat sink for D3 PAK, degreased finish	13" reel 250/reel
SHS-D3-313-B-TR	Heat sink for D3 PAK, black anodized	13" reel 250/reel

*NOTE: Some of the surface mount heat sinks are 100% exchangeable with those on market.*



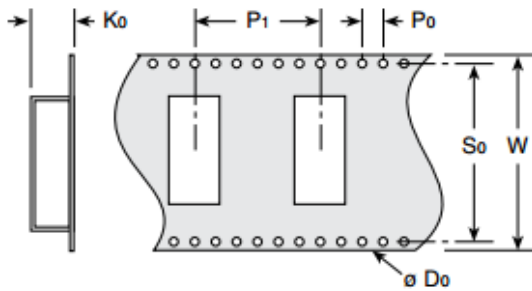
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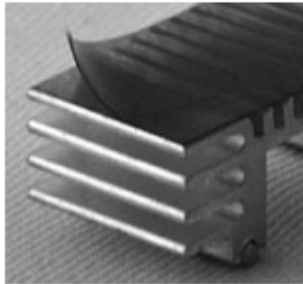


**TAPE & REEL PACKAGING INFO**

Reel diameter: 13.00" (330.00mm)  
250 pcs. per



$D_o$	1.55mm	1.5mm	1.5mm
$K_o$	10.5mm	12.20mm	11.80mm
$P_o$	4mm	4.0mm	4.0mm
$P_1$	20mm	20mm	20.0mm
$S_o$	40.4mm	40.4mm	52.4mm
$W_o$	44mm	44mm	56mm



Removable Kapton tape on each part facilitates handling by automatic pick and place equipment.

***Only for heat sinks with no flat head***