

Slalom Surface Mount Heat Sink for D²PAK



SLALOM SURFACE MOUNT HEAT SINK

Aavid Thermalloy introduces it newest innovation in SMT compatible heat sinks to meet the needs of newer higher power semiconductors. The heat sinks' unique design (Patent Pending) combines the technology of automatically assembling the tin plated solderable tags with that of stamping pre-black anodized or painted aluminium coils to configure these SMT heat sinks. Tags named "Skis" are fixed mechanically to the heat sink body by self-riveting or staking.



FEATURES AND BENEFITS:

- Increased thermal performance up to 30% over bright copper heat sinks from improved radiation of the black finish
- Unique aluminum 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
- The black finish provides enhanced heat absorption, improving Infra-red reflow process cycle time and quality
- Edge mounted "Skis" are designed for use in applications with limited PC board space and allow customization of footprint design and size
- · Available in bulk packaging or Tape & Reel

APPLICATIONS:

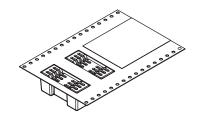
- Power Supplies
- · Telecommunication Equipment
- · Motor Controls
- · Medical Equipment
- · Industrial Process Control Equipment
- Consumer Products

ORDERING INFORMATION:

Part Number	Description	Packaging
412512	Surface mount heat sink for D ² PAK	Bulk 500 per bag
411399	Surface mount heat sink for D ² PAK	330 mm reel 250/per reel

TAPE AND REEL:

Tape width:	44.00 (1.73)
Pocket depth:	13.50 (0.53)
Pocket pitch:	20.00 (0.79)
Reel diameter:	330.00 (13.00)
Tape holes diameter:	1.50 (0.06)
Distance between tape holes centers (along width):	40.40 (1.59)
Pitch between tape holes centers (along length):	4.00 (0.16)



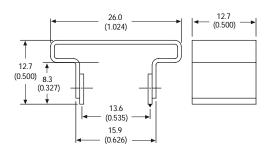


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MECHANICAL OUTLINE:

Figure 1



FOOTPRINTS:

The thickness of the drain pad is variable depending on the amount of heat generated by the SMT device, design, limitations and process. This is the exposed printed circuit.

Figure 2

Recommended Copper Heat Speader Drain Pad Footprint

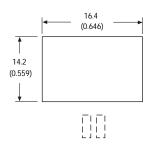
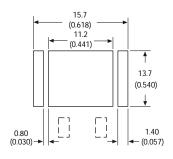


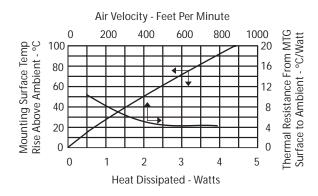
Figure 3

Recommended Heat Sink Solder Mask Opening



PERFORMANCE:

Slalom has a better thermal performance than standard copper heat sinks.



Power	Copper (Tinned)	Aluminium (Pre-black)	Improvement
Dissipated	Part 573300D00000G	Part 412512	
1W	28.5 °C/W RthN	24.6 °C/W RthN	15.9 %
2W	24.5 °C/W RthN	21.7 °C/W RthN	12.9 %
3W	23.1 °C/W RthN	28.03 °C/W RthN	13.8 %

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