

# CoolPower® SDM Connectors

## HIGH CURRENT COOLBAND POWER CONTACTS FOR MAXIMUM PERFORMANCE

CoolPower® Slim Drawer Mini (SDM) Connectors offer a high level of mating configuration flexibility, current density, and a thin profile making it ideal for compact board-to-board power interconnects. The CoolPower® SDM series is available with two or four power lines and boasts up to 318A per linear inch in a footprint of only 5.60mm x 14.00mm. The family utilizes high current CoolBand power contacts for maximum performance and is available in both vertical and right angle configurations. The SDM series accommodates custom features such as first mate/last break contacts or different tail lengths for a variety of circuit board thicknesses.

CoolPower® SDM provides a low-profile, cost-effective solution for applications such as datacom/networking equipment, robotics, EV charging stations, telecommunications equipment, energy storage systems, and other compact power applications.

- Up to 35A/pin
- Small footprint of 5.60mm x 14.00mm
- Backplane, coplanar, and orthogonal configurations available
- Designed to accommodate custom features such as; first-mate-last-break or extended tail lengths for thicker backplanes
- Two or four power lines available



### TARGET MARKETS



### FEATURES

- Available in both vertical and right angle configurations
- Small footprint of 5.60mm x 14.00mm
- High current CoolBand contact technology
- Dry lubricant
- Rated for up to 500 mating cycles

### BENEFITS

- Offers design flexibility suitable for vertical, right angle, or orthogonal configurations
- Utilizes a minimum amount of board space and improves airflow
- Maximum performance in a robust pin and socket
- Provides optimal electrical performance and lower mating forces
- Improved durability when compared to common blade connectors

## TECHNICAL INFORMATION

### MATERIAL

- Housing: Engineering thermoplastic, UL94V-0 rated, Black
- Terminal: Copper Alloy with Silver over Nickel plating, dry lubricant

### ELECTRICAL PERFORMANCE

- Current Rating: Up to 35A per contact (2.40mm solder tails)  
Up to 18A for 16AWG cable termination
- Contact Resistance: <0.50mΩ
- Insulation Resistance: 5000MΩ min.
- Dielectric Withstanding Voltage: 1500VAC

### MECHANICAL PERFORMANCE

- Durability: 500 mating cycles
- Physical Shock: Per EIA364-27 50g's ½ sine 11ms
- Humidity: Per EIA365-31 Condition B, Method III
- Vibration: Per EIA364-28 PER Condition V, Letter D
- Mixed Flowing Gas: Per EIA364-65, Condition III, 5 days
- Contact Retention: 12lbs for power pins
- Nominal Mating Force: 9N per 2.40mm Radsok® contact

### ENVIRONMENTAL

- Operating Temperature: -55°C to +105°C
- Storage Temperature: -55°C to +125°C

### APPROVALS & CERTIFICATION

- RoHS compliant
- UL1977 – File number E64911 covers many sizes and styles

### SPECIFICATIONS

- Recommended Soldering Process: Wave soldering peaked at 260°C for 8 seconds max. Solder tails suitable for PCB thickness of 1.59mm (.062”) to 2.36mm (.093”)

### TARGET MARKETS/APPLICATIONS



Power supply and distribution



Servers (1U, 2U)  
Storage devices  
Backplanes (Standard, Orthogonal, Cabled)



Test equipment



EV Charging

## PART NUMBERS

Description	Part Numbers
CoolPower® SDM 2 Pin, 2.4mm Radsok®, Vertical, PCB Termination	DWR-P1P-B7200-1A5
CoolPower® SDM 2 Socket, 2.4mm Radsok®, Vertical, PCB Termination	DWR-P1S-B7200-1A5
CoolPower® SDM 2 Socket, 2.4mm Radsok®, Vertical, Crimp Termination	DWR-P1S-C1200-1A5
CoolPower® SDM 2 Socket, 2.4mm Radsok®, Right Angle, PCB Termination	DWR-P1S-BQ200-1A6
CoolPower® SDM 2 Pin, 2.4mm Radsok®, Right Angle, PCB Termination	DWR-P1P-BQ200-1A6
CoolPower® SDM 2 Socket, 2.4mm Radsok®, Right Angle, PCB Termination	DWR-P1S-BQ200-104
CoolPower® SDM 2 Pin, 2.4mm Radsok®, Right Angle, PCB Termination	DWR-P1P-BQ200-103
CoolPower® SDM 2 Power, 2.4mm Radsok®, Vertical, Crimp Termination	DWR-P1S-C1200-1A5
CoolPower® SDM 2 Power, 2.4mm Radsok®, Right Angle, PCB Termination / Busbar Termination	DWR-P1S-BQ200-1A6 / DWR-P1S-BV200-101

PWRCOOLPWRSDM0323EA4