

# SheerPwr™ Circular Connector

## PCB-to-Busbar and PCB-to-PCB connectors

### REPEATED LOW RESISTANCE AND HIGH MIS-ALIGNMENT

SheerPwr™ Circular is a high-current, low-resistance interface designed for connecting busbars to circuit boards. It uses a robust and compliant power contact assembled in a circular orientation.

The result is a power socket, designed to mate with traditional machined pins, which provides repeated low resistance, high mis-alignment and high current carrying capabilities.

- Redundant contact points for improved reliability and lower resistance
- Low profile socket – regardless of current carrying capacity
- Provides a minimum of 4.0mm of gatherability, increases with pin diameter



**NEW**

#### TARGET MARKETS



### FEATURES

- Large beam deflection range handles up to +/-0.64mm permanent misalignment
- Redundant contact points
- Large gatherability
- AGT® silver plated contacts
- 3.6mm, 6mm, and 8mm mating pin sizes
- Low 6.8mm connector height
- Low halogen materials

### BENEFITS

- When fully misaligned, all of the beams still make contact with the pin
- Low and stable resistance
- For blind-mate applications
- Lower resistance
- Current carrying range delivering 70A, 120A, or 160A, depending on pin diameter
- Compact size fits in many applications and allows for greater airflow
- Meets JEDEC JS709 Electronics Industry Standards

## TECHNICAL INFORMATION

### MATERIAL

- Housing: High Temperature Thermoplastic, UL 94 V-0, Black
- Terminal: High Conductivity Copper Alloy
- Contact Area: AGT® Silver-based plating

### MECHANICAL PERFORMANCE

- Contact Wipe Distance: depends on pin length
- Durability: 100 mating cycles
- Mating Force: 20N to 50N

### ELECTRICAL PERFORMANCE

- Contact Resistance: 0.05 to 0.1mΩ
- Current Rating (30°C temperature rise in still air)
  - 3.6mm– 70A; 6mm– 120A; 8mm– 160A
- Operating Voltage: depends on application
- Dielectric Withstanding Voltage: 1000V

### TOOLING INFORMATION

- General flat press tooling required for vertical press-fit configuration

### ENVIRONMENTAL

- Operating Temperature: -40°C to +105°C
- RoHS Information: this product is compatible according to the European Union Directive 2011/65/EU

### SPECIFICATIONS

- Production Specification: GS-12-1316
- Application Specification: GS-20-0467

### PACKAGING

- Trays

### TARGET MARKETS/APPLICATIONS



AC/DC pluggable power supplies  
Pluggable circuit breakers  
Networking Equipment  
Switches



Server  
Storage

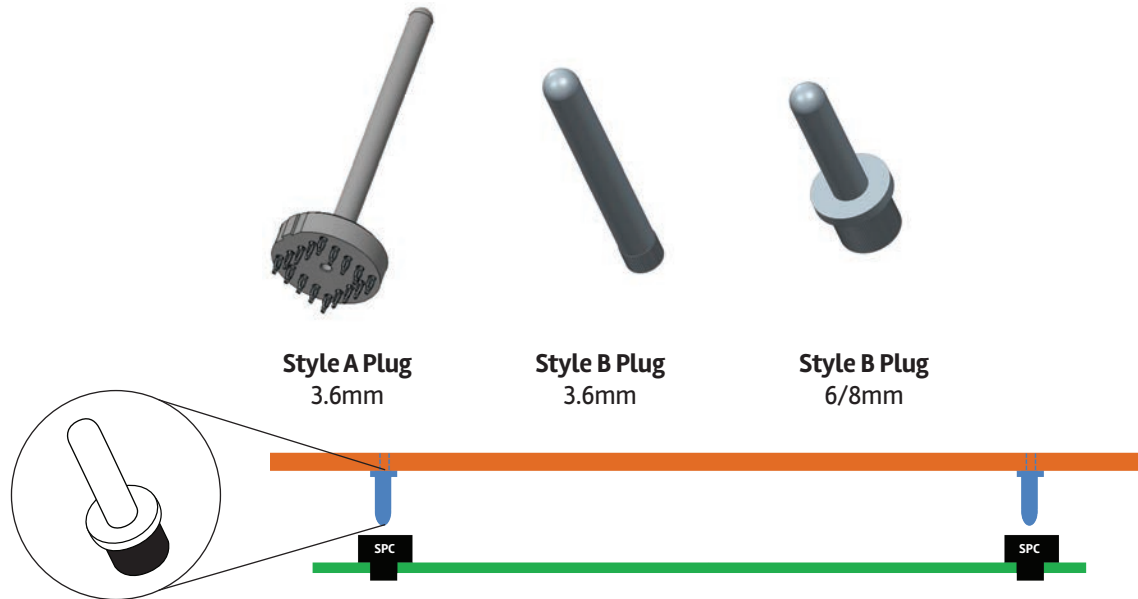


Industrial PC  
Industrial Controls & Instrumentation  
Circuit Breakers



Medical

## PART NUMBERS



Receptacle Pin Diameter	Press-fit to PCB	Mating Plug Pin Diameter	Style A Press-fit to PCB	Produces Mezzanine Stack Height *	Style B Press-fit to Busbar	Produces Mezzanine Stack Height *
3.6mm	10132381-20360LF	3.6mm	10140847-3601LF	42mm	10137675-XXXXLF 10139665-XXXXLF	Follows customer application
6.0mm	10132381-20600LF	6.0mm	10140553-XXXXLF	Follows customer application		Follows customer application
8.0mm	10132381-20800LF	8.0mm	10140847-XXXXLF	Follows customer application		Follows customer application

\* Other stack heights available upon request.

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