



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





preci-dip

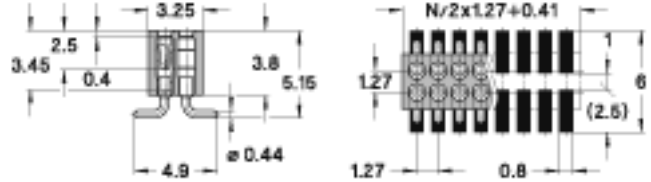
PCB CONNECTORS

SERIES
853

853-PP-NNN-30-001101

Double row
1.27 mm, Surface mount perpendicular gull-wing

Ultraminiature PCB socket connectors SMD mount.



TECHNICAL SPECS.:

| | |
|-------------------------------------|---|
| Insulator | Black glass filled polyester PCT-GF30-FR |
| Flammability | UL 94V-O |
| Sleeve | Brass CuZn36Pb3 (C36000) |
| Contact | Clip (3 finger): Beryllium copper (C17200) |
| Mating pin Ø | 0.35 to 0.50 mm |
| Insertion force | 0.5 N typ. |
| Withdrawal force | 0.2 N typ. (polished steel gauge Ø 0.41 mm) |
| Mechanical life | Min. 500 cycles |
| Rated current | 1 A |
| Contact resistance | Max. 20 m |
| Dielectric strength | Min. 500 V RMS |
| Coplanarity SMD terminations | Max. 0.1 mm (measured on 25 mm long connectors) |

ORDERING INFORMATION:

| | | |
|-----------------|--------|--------------|
| PP Plating code | Sleeve | Clip |
| 87 | Tin | Gold flash |
| 83 | Tin | Gold 0.75 µm |

NNN number of poles. Replace NNN with the requested number of poles, e.g. 851-83-NNN-30-001101 for a single row version with 8 pins becomes 851-83-008-30-001101

TECHNICAL ASSISTANCE

GENERAL SPECIFICATIONS:

The values listed below are general specs applying for PRECI-DIP socket and pin connectors. Please see individual catalog page for additional and product specific technical data.

| | |
|-----------------------------|---------------------------------|
| Operating temperature range | -55 ... +125 °C |
| Climatic category (IEC) | 55/125/21 |
| Operating humidity range | annual mean 75 % |
| Max working voltage | 100 VRMS/150 VDC (2.54 mm grid) |

PRECI-DIP sockets are recognized by Underwriters Laboratories Inc. and listed under "Connectors for Use in Data, Signal, Control and Power Applications", File Nr. E174442

MECHANICAL CHARACTERISTICS:

| | |
|-----------------------------------|---|
| Clip retention | Min. 40 N (no displacement under axial force applied) |
| Contact (sleeve / clip) retention | Min. 3.3 N acc. to MIL-DTL-83734, pt 4.6.4.2 |

ELECTRICAL CHARACTERISTICS:

| | |
|---|---------------------------|
| Insulation resistance between any two adjacent contacts | Min. 10'000 M at 500 V AC |
| Capacitance between any two adjacent contacts | Max. 1 pF |

Air and creepage distances between any two adjacent contacts :

| SERIES | 3xx/4xx/7xx | 80x | 83x | 85x | 86x |
|--------|-------------|------------|-----|-----------|-----|
| mm | 0.7 | 0.85 / 0.7 | 0.5 | 0.4 / 0.5 | 0.5 |

ENVIRONMENTAL CHARACTERISTICS:

The sockets withstand the following environmental tests without mechanical and electrical defects:

- Dry heat steady state IEC 60512-11-9.11i / 60068-2-2.Bb: 125 °C, 16h
- Damp heat cyclic IEC 60512-11-12.11m / 60068-2-30.Db: 25/55 °C, 90 – 100 %rH, 1 cycle of 24 h
- Cold steady state IEC 60512-11-10.11j / 60068-2-1.A: -55 °C, 2 h
- Thermal shock IEC 60512-11-4.11d / 60068-2-14.Na: -55/125 °C, 5 cycles 30 min
- Sinusoidal vibrations IEC 60512-6-4.6d / 60068-2-6.Fc: 10 to 500 Hz, 10 g, 1 octave/min, 10 cycles for each axis
- Shock IEC 60512-6-3.6c / 60068-2-27.Ea: 50 g, 11 ms, 3 shocks in three axis

During the above two tests no contact interruption >50 ns does appear.

- Solderability J-STD-002A, Test A, 245°C, 5 s solder alloy SnAg3.8Cu0.7
- Resistance to soldering heat J-STD-0020C, 260°C, 20 s
- Moisture sensitivity J-STD-020C level 1
- Resistance to corrosion :
 - 1) Salt spray test IEC 60068-2-11.Ka: 48 h
 - 2) Sulfur dioxide (SO₂) test IEC 60068-2-42 Kc: 96 h at 25 ppm SO₂, 25 °C, 75 %rH
 - 3) Hydrogen sulfide (H₂S) test IEC 60068-2-43 Kd: 96 h at 12 ppm H₂S, 25 °C, 75 %rH

SOLDERLESS COMPLIANT PRESS-FIT CHARACTERISTICS:

PRESS-FIT CHARACTERISTICS MEASURED ACC. TO IEC 60352-5

- Press-in force: 90 N max. (at min. hole dia.) / 65 N typ.
- Push-out force: 30 N min. (at max. hole dia.) / 50 N typ.
- Push-out 3rd cycle: 20 N min. (at max. hole dia.)

PCB HOLE DIMENSIONS

- 2 mm grid: Finished hole \varnothing : $0.7 + 0.09/-0.06$ mm | Drilled hole \varnothing : 0.8 ± 0.02 mm
- 2.54 mm grid: Finished hole \varnothing : $1 + 0.09/-0.06$ mm | Drilled hole \varnothing : 1.15 ± 0.02 mm

PCB HOLE PLATING

- PCB surface finish: Hole plating
- Tin: 5-15 μm tin over min. 25 μm copper
- Copper: min. 25 μm copper
- Gold over nickel: 0.05-0.2 μm gold over 2.5-5 μm nickel over min. 25 μm copper

PACKAGING:

Standard connector packaging is card box.

SMD mount connectors available on request with Tape & Reel packaging acc. to EIA Standard 481.