DIL SOCKETS

SERIES
146

146-PP-XXX-41-XXX101
2.54 mm, Solderless press-fit mount

DIL Sockets with compliant press-fit pin for solderless mount in PCB plated through holes

TECHNICAL SPECS.:  

<table>
<thead>
<tr>
<th>Insulator</th>
<th>Black glass filled polyester PCT-GF30-FR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>UL 94V-O</td>
</tr>
<tr>
<td>Sleeve</td>
<td>Bronze CuSn4Pb4Zn4 (C54400)</td>
</tr>
<tr>
<td>Contact</td>
<td>Clip (4 finger): Beryllium copper (C17200)</td>
</tr>
<tr>
<td>Accepted pin Ø</td>
<td>0.40 to 0.56 mm</td>
</tr>
<tr>
<td>Insertion force</td>
<td>2 N typ.</td>
</tr>
<tr>
<td>Withdrawal force</td>
<td>1 N typ. (polished steel gauge Ø 0.43 mm)</td>
</tr>
<tr>
<td>Mechanical life</td>
<td>Min. 500 cycles</td>
</tr>
<tr>
<td>Rated current</td>
<td>1 A</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>Max. 10 m</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>Min. 1000 V RMS</td>
</tr>
<tr>
<td>PCB hole Ø</td>
<td>1 +0.09/-0.06 mm finished (1.15 ±0.025 mm drill)</td>
</tr>
</tbody>
</table>

ORDERING INFORMATION:

<table>
<thead>
<tr>
<th>PP Plating code</th>
<th>Sleeve</th>
<th>Clip</th>
</tr>
</thead>
<tbody>
<tr>
<td>87</td>
<td>Tin</td>
<td>Gold flash</td>
</tr>
<tr>
<td>83</td>
<td>Tin</td>
<td>Gold 0.75 µm</td>
</tr>
</tbody>
</table>

For complete part number replace XXX with the code given below left for the required contact length L
GENERAL SPECIFICATIONS:
The values listed below are general specs applying for PRECI-DIP DIL sockets. 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

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: Min. 0.6 mm (Min. 0.2 mm FOR SHRINK-DIP SOCKETS)

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

- 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
- 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

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

- 2.54 mm grid: Finished hole Ø: 1 + 0.09/-0.06 mm | Drilled hole Ø: 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