



preci-dip

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PGA / BGA / PLCC

GENERAL SPECIFICATIONS

The values listed below are general specs applying for Preci-Dip PGA, BGA and PLCC 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 V _{RMS} /150 V _{DC} (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 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 MΩ at 500 V _{AC}
CAPACITANCE BETWEEN ANY TWO ADJACENT CONTACTS	Max. 1 pF (PLCC max. 2 pF)
SELF INDUCTANCE PER CONTACT	Max. 2 nH

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, 16 h
 - 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-020C, 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

- 2.54 mm grid

Finished hole Ø:	1 + 0.09/-0.06 mm
Drilled hole Ø:	1.15 ± 0.025 mm
- Interstitial grid

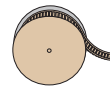
Finished hole Ø:	0.7 + 0.09/-0.06 mm
Drilled hole Ø:	0.8 ± 0.02 mm

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 packaging for PGA, BGA and PLCC sockets is tube packaging.
- SMD mount sockets available on request with Tape & Reel packaging acc. to EIA Standard 481. These products are marked with the symbol:



T & R Packaging

Please consult www.precidip.com for availability size of tape, size of reel, number of components per reel and packing units.