Crystal Oscillator and Quad-in-Line Sockets

Crystal Oscillator Sockets

Crystal Oscillator Socket

Quad-in-line Sockets

Quad-in-Line Socket

Other pin-outs available on request.

Specifications

Mechanical data
Insertion force 1.80 N for COS & 0.70N for QIL
Extraction force 0.90 N for COS & 0.25N for QIL
Contact life > 100 cycles as per IEC 60068-2-58
Solderability Contact security:
-Vibration as per EN60352-4
-Shock as per EN60352-4

Material
Insulator (RoHS compliant) COS Series: hi temp plastic UL 94 V-0
(QIL Series: PBT plastic UL 94 V-0
Terminal (RoHS compliant) CuZn
Contact (RoHS compliant) BeCu

Electrical data
Contact resistance at 1A 4.3 mΩ typ.
Current rating 1A max., 100V
Contact capacitance at 1MHz 2 pF max.
Insulation resistance at 500V DC 5 x10⁸ Ω min.
Breakdown voltage at 60 Hz 500 V AC
Contact resistance ≤ 7 mΩ
Operating temperature -55°C to +125°C
Pitch 2.54 mm (.100"

More information, for example about test result please ref. to page 49 or contact E-tec.

How to order

X X X  -  x x x  -  S 0 0 1  -  95

Series
COS = Crystal Oscillator Socket
QIL = Quad in line Socket

Nbr of contacts & pitch
Refer to above table. Other configurations on request.

Terminal style
see drawing

Plating
- 95 = tin/gold (tin leadfree)
General Specifications for Precision Pin Sockets

**Mechanical data**
Average forces for available clip types:
- **Standard type**: 1.80N insertion / 0.90N extraction
- **Low force type**: 0.70N insertion / 0.25N extraction
- **Super low force type**: 0.40N insertion / 0.15N extraction
- **High force type**: 4.00N insertion / 2.50N extraction
- **“Jumbo” contact**: 1.40N insertion / 0.25N extraction

**Other clips and forces available on request**

**Contact life**: min. 100 cycles
**Vibration as per EN60352-4**: sinusoidal, 10 to 500 Hz, 10g, 1 octave/min, 10 cycles for each axis
**Shock as per EN60352-4**: half sine, 50g, 11ms, 3 shocks in 3 axes

**Thermal shock as per IEC 60068-2-14**: -55Â°C/+125Â°C, 5 cycles, 30 minutes

**Solderability as per IEC 60068-2-58**: 245Â°C to 255Â°C 5 sec; Sn97Ag3 solder alloy

**Dry heat steady state as per IEC 60068-2-2**: 260Â°C for 20 sec.

**Cold stead state as per IEC 60068-2-1**: -55Â°C, 2h

**Damp heat cyclic as per IEC 60068-2-30**: 55Â°C, 90-100%rh, 24h

**Moisture sensitivity Level (JEDEC J-STD-020C)**: 2 for PBT & Nylon

**PCB holes for 2.54mm pitch standard connectors**: 1.00mm diameter

**Coplanarity thru-hole**: 0.30mm

**General tolerances**: +/- 0.10mm

**Operating temperature (standard)**: -55Â°C to +125Â°C

**Processing temperature**
- Injection molded insulator (high temp): +250Â°C +0/+5Â°C for 20—40 sec.
- (reflow solder)
- Injection molded insulator (PBT): +250Â°C +0/+5Â°C for 10 sec.
- (wave solder only)
- Epoxy FR4 (Standard): +220Â°C min. for 10 sec.
- Epoxy FR4 (hi temp): +260Â°C min. for 60 sec.

**Electrical data**
- **Contact resistance at 1A**: 4.3 mÎ© typ.
- **Current rating (except “Jumbo” contact)**: 1A max.
- **“Jumbo” contact**: 3A max.
- **Contact capacitance at 1MHz**: 2pF max.
- **Insulation resistance at 500V DC for std & hi-temp**: 5 x 10^10 Î© min.
- **Insulation resistance at 500V DC for FR4 Epoxy**: >10^10 Î©
- **Breakdown voltage at 60 Hz**: 500 V AC min.
- **Contact resistance after 1000 ins./ext. cycles**: < 7 mÎ©

**Material** (RoHS compliant)
- **Standard temperature plastic**: PBT
- **High-temp plastic**: Nylon, PCT, SPS, PPS, LCP
- **UL 94 V-0**
- **Epoxy FR4**: UL 94 V-0 & UL 94 V-1

**Plating**:
- **Standard tin plating**: Sn for Material specification.
- **Standard gold plating**: m Au over Ni
- **High tin plating**: m Sn (leadfree) over Ni
- **Higher gold platings are offered on request**

**Specifications**:
The data contained in this catalog is of general nature and refers to standard products. For example a „Current rating” at an ambient temperature of 25Â°C reflects the value per individual contact. Should you require any further data or test reports, you can obtain this information from your nearest E-tec sales office.

**E-tec interconnect products**
- **Male pin dimensions for standard clip** (except „Jumbo Contact”)
- (DIN 41 870, IEC 191 for square IC-legs)

**General information concerning the E-tec interconnect products**
- **Plating**:
  - Standard tin plating: min. 2.50Î¼m Sn (leadfree) over Ni
  - Standard gold plating: flash, max. 0.10Î¼m Au over Ni
  - Higher gold platings are offered on request

**Specifications**:
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