E-tec is now the leading BGA socket manufacturer and offers a solderless socket where board to chip contact is made without the need to solder.

EP patents 0829188, 0897655 US patents 6190181, 6249440 Patented in other countries.

Solderless compression type sockets are available for any chip size and grid pattern. The solderless socket is easily mounted to the PCB with 4 through hole mounting pegs. The assembly board ensures perfect coplanarity of the socket. Contact reliability is guaranteed with spring loaded gold plated contacts, which are pressed onto gold plated PCB pads. Solderless compression type sockets are available with FastLock, TwistLock, “Economy” ClamShell, QuickLock, LeverLock and “Professional” ClamShell retention systems. We aim to solve your requirements - many different terminals and configurations are available. Your custom sets our standards!

Please note, we will always request the chip data to ensure we offer a compatible socket.

Specifications

<table>
<thead>
<tr>
<th>Electrical data</th>
<th>Mechanical data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact resistance</td>
<td>Contact life</td>
</tr>
<tr>
<td>500 mA max.</td>
<td>10,000 cycles min.</td>
</tr>
<tr>
<td>Insulation resistance at 500V DC</td>
<td>Retention System life</td>
</tr>
<tr>
<td>100 MΩ / 0.50 to 0.80mm pitch</td>
<td>TwistLock &amp; LeverLock 1,000 cycles min.</td>
</tr>
<tr>
<td>Breakdown voltage at 60 Hz</td>
<td>Individual contact force</td>
</tr>
<tr>
<td>500V min.</td>
<td>40 grams max.</td>
</tr>
<tr>
<td>Capacitance</td>
<td>Material</td>
</tr>
<tr>
<td>&lt; 1 pF</td>
<td>Insulator (RoHS compliant)</td>
</tr>
<tr>
<td>Inductance</td>
<td>Terminal (RoHS compliant)</td>
</tr>
<tr>
<td>&lt; 2 nH</td>
<td>Contact (RoHS compliant)</td>
</tr>
</tbody>
</table>

Important Note:
Please check the ball diameters & heights of your chip prior to ordering the standard E-tec BGA (BPW) sockets. Any deviation has to be communicated to E-tec in order to check compatibility with the standard socket design and if necessary to obtain a special order code adapted to your chip dimensions. The standard solderball diameters & heights are the following:

- 0.50mm
- 0.65mm
- 0.75mm
- 0.80mm
- 0.90mm
- 1.00mm
- 1.27mm & higher

For a different PCB thickness, please inform E-tec first!

How to order

Device Type

- B = Ball Grid
- L = Land Grid
- C = Column Grid

Socket Type

- P = socket for LGA, CGA and BGA chips with std diameter solderballs in 0.80mm pitch or higher (see dimensions in table above)
- U = socket for BGA chips with small diameter solderballs and for all chips with a pitch of 0.75mm or lower

Pitch

- 04 = 0.40mm
- 05 = 0.50mm
- 06 = 0.65mm
- 07 = 0.75mm
- 08 = 0.80mm
- 10 = 1.00mm
- 12 = 1.27mm
- 15 = 1.50mm

Nbr of contacts depends on ballcount of chip

Plating

- 55 = gold

Locking Type

- F = FastLock
- C = ClamShell “Professional” Type
- E = ClamShell “Economy” Type
- Q = QuickLock
- W = TwistLock
- Z = LeverLock

Nbr of contacts

- 90 = standard probes up to 3 GHz
- 91 = high speed probes exceeding 10 GHz

Option

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