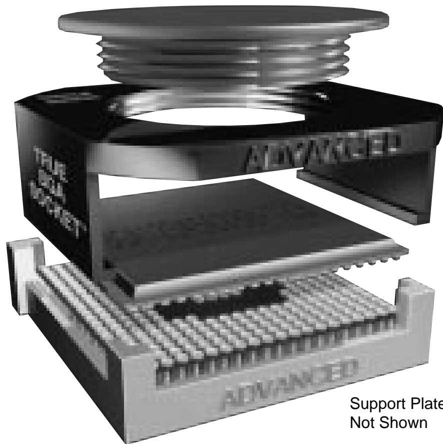
ADVANCED INTERCONNECTIONS®
5 Energy Way, West Warwick, RI 02893 USA Tel: 800-424-9850 / 401-823-5200 Fax: 401-823-8723 E-mail: info@advintcorp.com Internet: www.advintcorp.com

True BGA Socket™ Ball Grid Array Sockets

PATENTED



True BGA Socket™ Features

- No soldering of BGA device required.
- AIC exclusive eutectic solder ball terminals offer superior processing.
- Uses same footprint as BGA device.
- Designed for production, development, programming and test applications.
- Compact design maximizes PCB real estate:
  - TSG = Device Pkg. Size + 0.216/(5.5mm)
  - TSH = Device Pkg. Size + 0.374/(9.5mm)
- Available with integral, finned heat sink or coin screw clamp assembly.
- Currently available in 1.0 and 1.27mm pitch.
- New Short Slide Clamp reduces required installation space on PCB.

Specifications

Terminals: Brass; Copper Alloy (C36000)

Terminal Support: Polyimide Film

Contacts: Beryllium Copper (C17200)

Plating: G – Gold over Nickel

Spring Material: Beryllium Copper

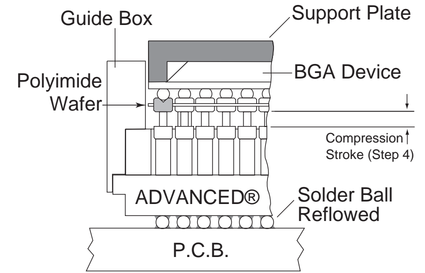
Clamp Assembly: Aluminum
(Heat Sink/Coin Screw, Clamp, Support Plate)

Insulator Material:
Molded PPS (High Temp. Glass Filled Thermoplastic), U.L. Rated 94V-O, -60°C to 260°C (-76°F to 500°F)

Solder Ball:
Eutectic, 63Sn/37Pb,183°C (361°F)

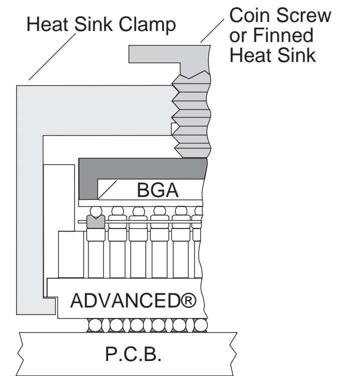
How It Works

Step 1
- Solder True BGA Socket™ to PCB



Step 2
- Align and place BGA device on top of True BGA Socket mating contacts. Place Chip Support Plate over BGA device.

Step 3
- Slide Clamp over assembly. Allow space on PCB for sliding clamp [approximately 33% of device package size on one side only with new Short Slide Clamp]. Refer to Clamp Sliding Directions for pin 1 location (see page 4).

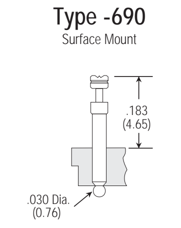


Step 4
- Tighten Coin Screw or Finned Heat Sink to engage compression stroke.

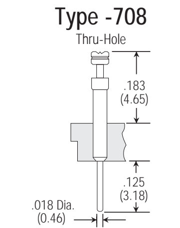
1.27mm Pitch Terminal Options

Standard Terminals
for Test, Development and Production Applications

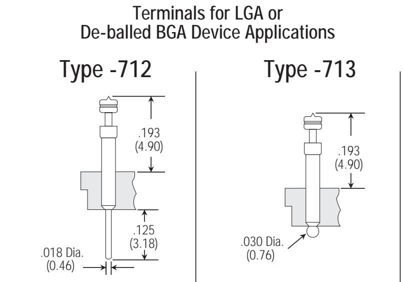
Type -690
Surface Mount



Type -708
Thru-Hole

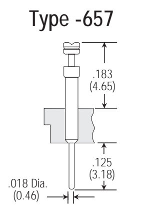


Terminals for LGA or
De-balled BGA Device Applications

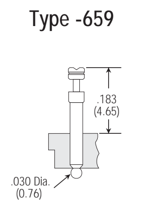


Terminals for BGA Device Test Applications
(Consult Factory for Availability)

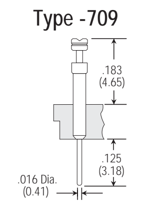
Type -657



Type -659

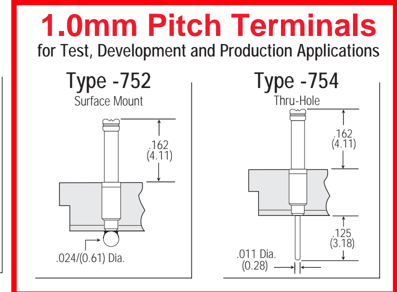


Type -709

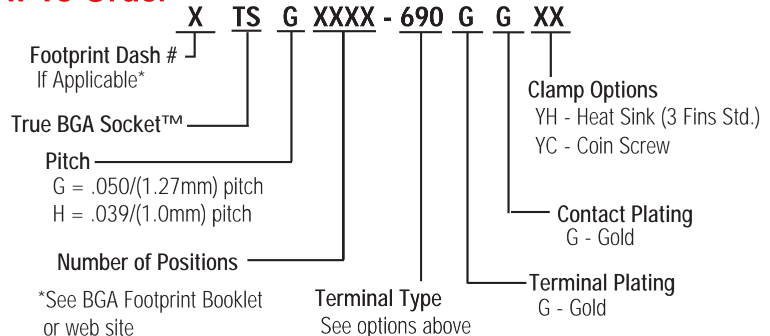


1.0mm Pitch Terminals

for Test, Development and Production Applications



How To Order



Mechanical specifications for BGA device package required for quoting/ordering.

Pop-Top® BGA Socket Adapter System

5 Energy Way, West Warwick, RI 02893 USA Tel: 800-424-9850 / 401-823-5200 Fax: 401-823-8723 E-mail: info@advintcorp.com Internet: www.advintcorp.com

Pop-Top® System Features

- Designed for large I/O BGA devices.
- Patented limited-stroke terminal design allows ultra low insertion and extraction.
- AIC patented eutectic solder ball terminals offer superior processing.
- Compact design maximizes PCB real estate – only 0.139/(3.52mm) nominal wider than BGA device body size on clip side.
- Uses same footprint as BGA device.
- Currently available in .050/(1.27mm) pitch.
- Available with integral, finned heat sink or coin screw.

Specifications

Terminals: Brass; Copper Alloy (C36000), ASTM-B-16

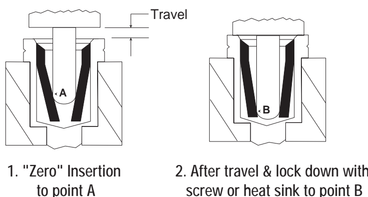
Contacts: Beryllium Copper; Copper Alloy (C17200), ASTM-B-194

Plating: G – Gold over Nickel

Body Material:
Molded PPS (High Temp. Glass Filled Thermoplastic), U.L. Rated 94V-O, -60°C to 260°C (-76°F to 500°F)

Solder Ball:
Eutectic, 63Sn/37Pb, 183°C (361.4°F)

Patented Pop-Top® Action



1. "Zero" Insertion to point A

2. After travel & lock down with screw or heat sink to point B

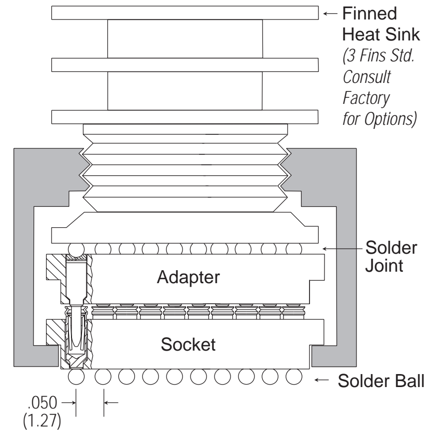
How It Works

Step 1
- Solder BGA Socket to PCB.

Step 2
- Solder BGA device to Adapter.

Step 3
- Align and insert device/ Adapter assembly into BGA Socket.

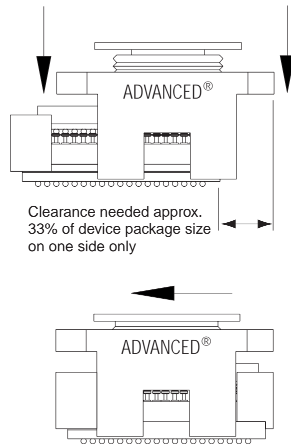
Step 4
- Slide Retention Clamp over entire assembly.
- Turn Coin Screw (CS) or Finned Heat Sink (HS) to engage Adapter into Socket and lock down



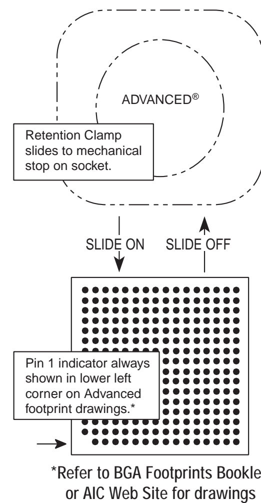
NEW Short Slide Clamp For High Density PC Boards

(Also Standard On True BGA Socket™)

- Reduces required installation space (clearance for sliding clamp) by 50 to 75%

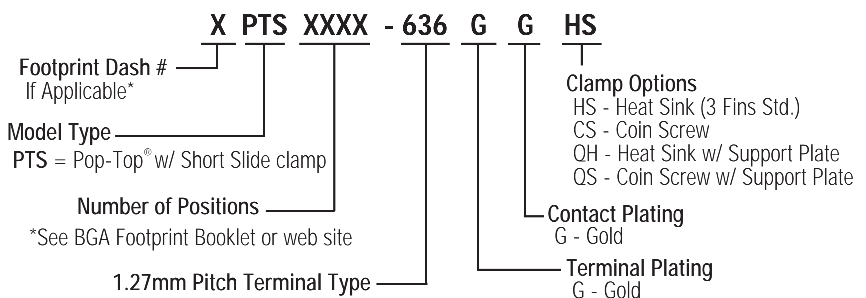


Retention Clamp Sliding Direction For Pop-Top® and True BGA Socket™



*Refer to BGA Footprints Booklet or AIC Web Site for drawings

How To Order



Mechanical specifications for BGA device package required for quoting/ordering.

Products shown covered by patents issued and/or pending. Specifications subject to change without notice. Dimensions shown: inch/(mm).

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