

Board to Board Connectors

B2B® High Density SMT Connectors .050/(1.27mm) Pitch



Features:

- Robust, shrouded design with screw-machined terminals and multi-finger contacts can withstand the rigorous demands of blind mating and mating/unmating cycles.
- At 3 amps per pin, more contacts can be assigned to data/signal transfer (fewer pins needed to handle power and ground).
- High density - over 400 contacts per square inch.
- Industry standard footprints in four mated heights.
- Precision molded with integral polarization keying features.

Specifications:

Terminals:

Brass - Copper Alloy
(C36000) ASTM-B-16

Contacts:

Beryllium Copper
(C17200) ASTM-B-194

Solder Ball:

Standard: 63Sn/37Pb
Lead-free: 95.5Sn/4.0Ag/0.5Cu

Plating:

G - Gold over Nickel
Gold per ASTM-B-488
Nickel per QQ-N-290

Table of Models

| | | |
|--------|--|--|
| Female | | <p>Description: Molded B2B® Connector (BB) Material: High Temp. Liquid Crystal Polymer (LCP) Index: -40°C to 260°C (-40°F to 500°F)</p> |
| Male | | <p>Description: Molded B2B® Connector (BA) Material: High Temp. Liquid Crystal Polymer (LCP) Index: -40°C to 260°C (-40°F to 500°F)</p> |

Performance

| Mated Height | Differential Insertion Loss | Differential Return Loss |
|--------------|-----------------------------|--------------------------|
| 6.00mm | -20dB @ 1.70 GHz | -10dB @ 3.30 GHz |
| | -50dB @ 3.30 GHz | -15dB @ 1.70 GHz |
| 8.00mm | -15dB @ 1.30 GHz | -10dB @ 2.50 GHz |
| | -50dB @ 2.50 GHz | -15dB @ 1.30 GHz |
| 12.70mm | -20dB @ 1.70 GHz | -10dB @ 3.40 GHz |
| | -51dB @ 3.40 GHz | -15dB @ 1.70 GHz |
| 19.05mm | -60dB @ 2.20 GHz | -10dB @ 2.20 GHz |
| | -20dB @ 1.40 GHz | -15dB @ 1.40 GHz |

Insertion Force (6.00mm, 300 position):
50g average (per pin)

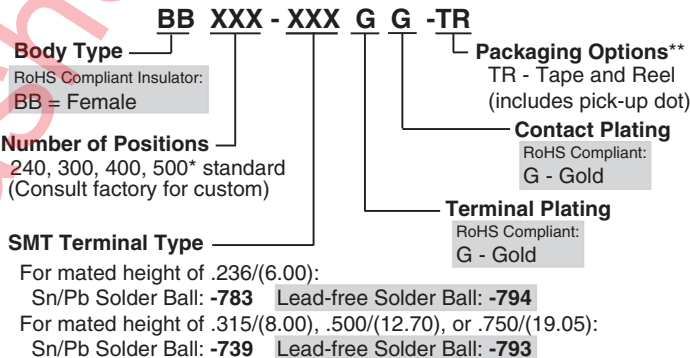
Extraction Force (6.00mm, 300 position):
45g average (per pin)

Durability (mated cycles):
500 cycles (<10mΩ change in resistance)

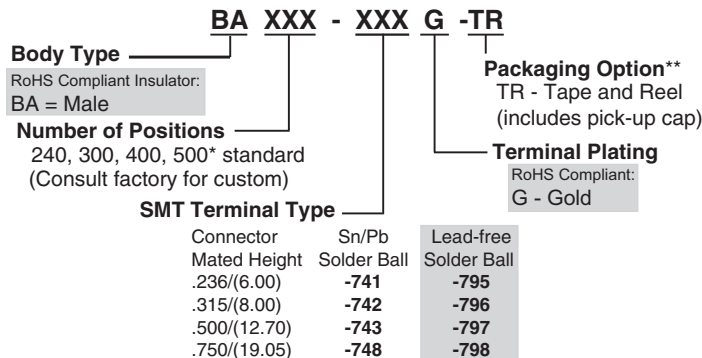
Additional performance and test data available online.

How To Order

Female



Male



*500 pos. available in 6mm mated height only.

**If no packaging code is indicated, male connectors are supplied with pick-up caps in standard trays.



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Products shown covered by patents issued and/or pending. Specifications subject to change without notice.

inch/(mm)

B2B® High Density SMT Connectors .050/(1.27mm) Pitch

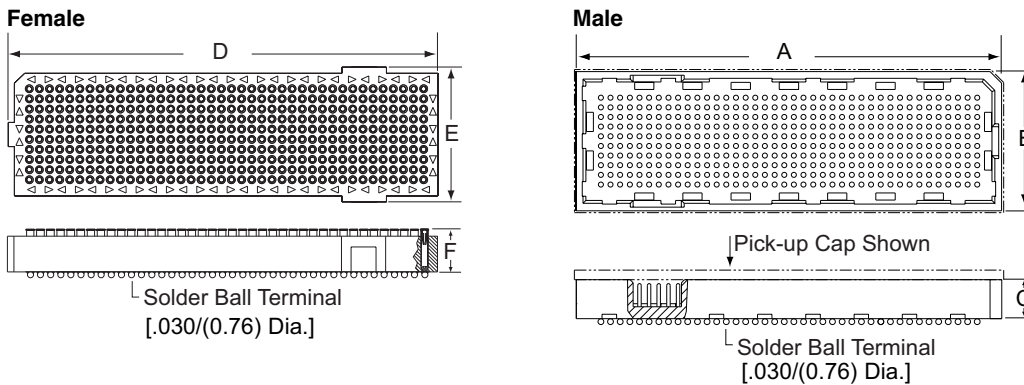
Standard Footprints

1.27mm Pitch

| | |
|--|---|
| | <ul style="list-style-type: none"> • 240 Positions • 30x8 Rows |
| | <ul style="list-style-type: none"> • 300 Positions • 30x10 Rows |
| | <ul style="list-style-type: none"> • 400 Positions • 40x10 Rows |
| | <ul style="list-style-type: none"> • 500 Positions • 50x10 Rows |

Consult factory for custom sizes.

Dimensional Information



| Mated Board to Board Height* | A in./(mm) | B in./(mm) | C [^] in./(mm) | D [^] in./(mm) | E [^] in./(mm) | F [^] in./(mm) |
|------------------------------|---------------|---------------|----------------------------|----------------------------|----------------------------|----------------------------|
| .236/(6.00) | 1.704/(43.28) | .622/(15.80) | .202/(5.13) | 1.626/(41.30) | .567/(14.40) | .136/(3.45) |
| .315/(8.00) | 1.704/(43.28) | .622/(15.80) | .273/(6.93) | 1.626/(41.30) | .567/(14.40) | .211/(5.36) |
| .500/(12.70) | 1.704/(43.28) | .622/(15.80) | .462/(11.73) | 1.626/(41.30) | .567/(14.40) | .211/(5.36) |
| .750/(19.05) | 1.704/(43.28) | .622/(15.80) | .712/(18.09) | 1.626/(41.30) | .567/(14.40) | .211/(5.36) |
| .236/(6.00) | 1.704/(43.28) | .722/(18.34) | .202/(5.13) | 1.626/(41.30) | .667/(16.94) | .136/(3.45) |
| .315/(8.00) | 1.704/(43.28) | .722/(18.34) | .273/(6.93) | 1.626/(41.30) | .667/(16.94) | .211/(5.36) |
| .500/(12.70) | 1.704/(43.28) | .722/(18.34) | .462/(11.73) | 1.626/(41.30) | .667/(16.94) | .211/(5.36) |
| .750/(19.05) | 1.704/(43.28) | .722/(18.34) | .712/(18.09) | 1.626/(41.30) | .667/(16.94) | .211/(5.36) |
| .236/(6.00) | 2.204/(55.98) | .722/(18.34) | .202/(5.13) | 2.126/(54.00) | .667/(16.94) | .136/(3.45) |
| .315/(8.00) | 2.204/(55.98) | .722/(18.34) | .273/(6.93) | 2.126/(54.00) | .667/(16.94) | .211/(5.36) |
| .500/(12.70) | 2.204/(55.98) | .722/(18.34) | .462/(11.73) | 2.126/(54.00) | .667/(16.94) | .211/(5.36) |
| .750/(19.05) | 2.204/(55.98) | .722/(18.34) | .712/(18.09) | 2.126/(54.00) | .667/(16.94) | .211/(5.36) |
| .236/(6.00) | 2.704/(68.68) | .722/(18.34) | .202/(5.13) | 2.626/(66.70) | .667/(16.94) | .136/(3.45) |

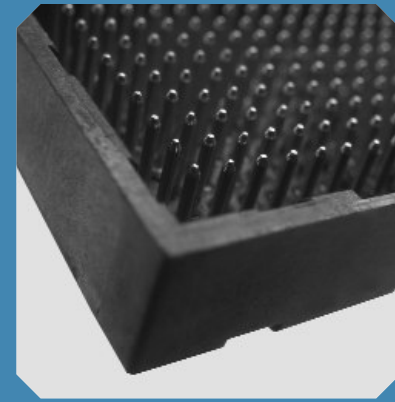
Additional mated heights coming soon. Consult factory.

*Approximate dimension after soldering. [^]Dimensions do not include solder ball height.

inch/(mm)

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Board to Board Connectors



Packaging & Options:

Male connectors - supplied with a pick-up cap to protect male pins and facilitate automated pick-and-place. Pick-up cap remains in place during reflow.



Female connectors - supplied with a polyimide dot to facilitate automated pick-and-place.

Tape and Reel - Add -TR to end of part number for Tape and Reel packaging.

Standard Trays - If no packaging code is indicated, connectors are shipped in standard trays (Note: Trays are not suitable for automated pick-and-place processes.)

Available Online:

- RoHS Qualification Test Report
- Product Specification
- Test data
- Signal Integrity Data
- CAD Drawings



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