

BergStik® Headers Straight Unshrouded

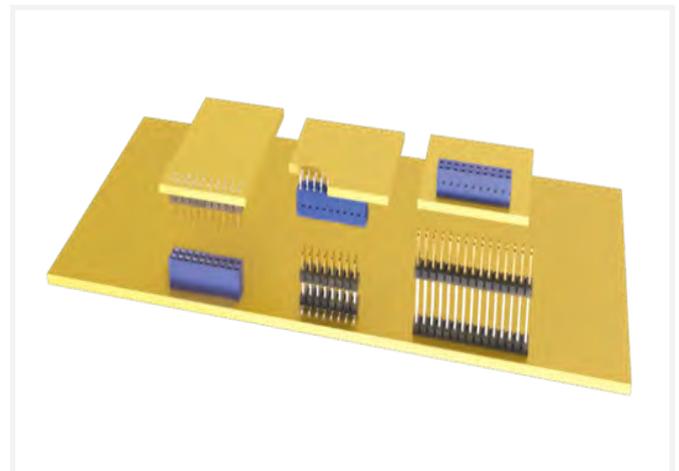
2.54MM PITCH

VERSATILE HEADERS WITH BREAKAWAY DESIGN

BergStik® Amphenol FCI Basics 2.54mm unshrouded headers are offered in Surface-mount (SMT), Through-hole (THT), Press-fit (PF), and Pin-in-Paste (PIP) versions. Available in single and double rows from 2 to 72 positions.

These “breakaway headers” can be cut or broken into specific lengths to suit the application profile with a maximum current rating of 3A per contact. The drawn-wire pins offer an economical solution for various applications with durability of up to 100 mating.

- Same PCB layout for Through-Hole and PF versions
- Multiple termination options: SMT, THT, PF, PIP
- Fully compatible with Dubox® receptacles



TARGET MARKETS



FEATURES

- High temperature thermoplastic material
- Customizable height
- Blank 0.64mm square contacts present 4 surfaces of equal quality
- Standoff design
- Duplex plating
- Tin-lead plating in press-fit area
- Press-fit designed to fit 1.02mm diameter hole, solder-to-board products
- Meets DIN 41651 specification, HE 13, and BT D2632

BENEFITS

- Re-flow compatible
- Cater to a wide range of applications
- Suitable for mezzanine application and gives more flexibility in meeting different stack height requirements
- Can be used for wire wrapping
- Allows cleaning to remove soldering contamination
- Cost efficient
- Easy pin insertion onto PCB
- High retention force onto PCB
- Same layout on THT and press-fit
- Qualified product

TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature thermoplastic
- Flammability Rating: UL94V-0
- Pin: Phosphor Bronze
- Plating: Gold / GXT® or Tin over 1.27µm (50µin) Nickel

MECHANICAL PERFORMANCE

- Pin Retention Force to Housing: 9N min.

ELECTRICAL PERFORMANCE

- Current Rating:
 - 3A continuous
 - 2A DC max. per contact for fully energized connector
- Insulation Resistance: 5000MΩ min.
- Dielectric Withstanding Voltage: 1500Vrms min.

ENVIRONMENTAL

- Operating Temperature Range: -65°C to +125°C

SPECIFICATIONS

- Product Specification: BUS-12-050 / BUS-12-144 (duplex plated) / BUS-12-117 (press-fit)

APPROVALS & CERTIFICATION

- UL Approval: E66906

PACKAGING

- Poly bags
- Endless reels
- Optional: Tubes or Tape and Reel with pick-up cap (if available)

TOOLING INFORMATION

- Insertion tool: 30AWG to 20AWG

TARGET MARKETS/APPLICATIONS



Personal Care Devices (Air Dryer)
Home Care Devices (Cleaning Robot)
Home Automation (Alarm System)



Server
Storage

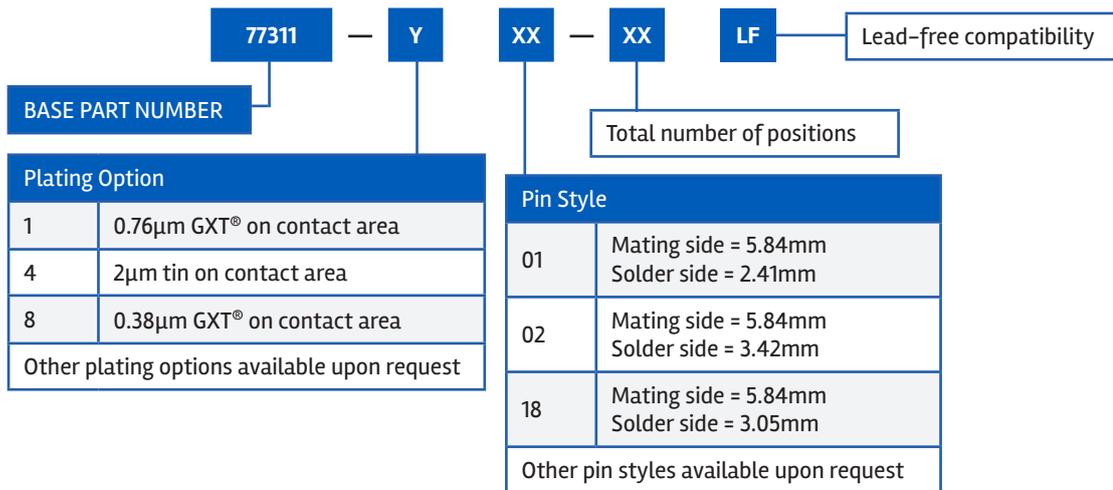


Robotics
Programmable Logic Controller (PLC)
Power Tool

PART NUMBERS

Description	Part Numbers
Unshrouded Header, Straight, Single Row, TMT	77311
Unshrouded Header, Straight, Single Row, SMT	95293
Unshrouded Header, Straight, Single Row, Press-Fit	93689
Unshrouded Header, Straight, Double Row, TMT	77313
Unshrouded Header, Straight, Double Row, SMT	95278
Unshrouded Header, Straight, Double Row, Press-Fit	93690

PART NUMBER SELECTOR – STRAIGHT UNSHROUDED HEADERS



BASICSRGSTKHDRSUH123EA4

BergStik® Headers Stacking Unshrouded

2.54MM PITCH

CUSTOMIZABLE STACKING HEADERS WITH BREAKAWAY DESIGN

BergStik® Amphenol FCI Basics 2.54mm Stacking Unshrouded Headers are offered in Surface-mount (SMT), Through-hole (THT), Press-fit (PF) and Pin-in-Paste (PIP) versions. Available in single and double row from 2 to 72 positions.

These “breakaway headers” can be cut or broken into specific lengths to suit the application profile with a maximum current rating of 3A per contact.

The drawn-wire pins offer an economical solution for various applications with durability up to 100 mating cycles.

- Duplex, triplex or full plating
- Height up to 55.00mm (duplex plating) and 65.00mm (triplex)
- Multiple termination options: SMT, THT, PF, PIP
- Fully compatible with Dubox® receptacles

FEATURES

- High temperature thermoplastic material
- Customizable height
- Allow dual entry, mating from top or bottom
- Blank 0.64mm square contacts present four surfaces of equal quality
- Standoff design
- Duplex plating
- Tin-lead plating in press-fit area
- Press-fit designed to fit 1.02mm diameter hole, solder-to-board products
- Meets DIN 41651 specification, HE 13, and BT D2632



BENEFITS

- Re-flow compatible
- Cater to a wide range of applications
- Suitable for mezzanine application and gives more flexibility in meeting different stack height requirements
- Can be used for wire wrapping
- Allows cleaning to remove soldering contamination
- Cost efficient
- Easy pin insertion onto PCB
- High retention force onto PCB
- Same layout on THT and Press-fit
- Qualified product

TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature thermoplastic
- Flammability Rating: UL94V-0
- Pin: Phosphor Bronze
- Plating: Gold / GXT® or Tin over 1.27µm (50µin) Nickel

MECHANICAL PERFORMANCE

- Pin Retention Force to Housing: 9N min.

ELECTRICAL PERFORMANCE

- Current Rating:
 - 3A continuous 2ADC max. per contact for fully energized connector
- Insulation Resistance: 5000MΩ min.
- Dielectric Withstanding Voltage: 1500Vrms min.

ENVIRONMENTAL

- Operating Temperature Range: -65°C to +125°C

SPECIFICATIONS

- Product Specification: BUS-12-050 / BUS-12-144 (duplex plated) / BUS-12-117 (press-fit)

APPROVALS & CERTIFICATION

- UL Approval: E66906

PACKAGING

- Poly bags
- Optional: Tubes or Tape and Reel with pick-up cap (if available)

TARGET MARKETS/APPLICATIONS



Personal Care Devices (Air Dryer)
Home Care Devices (Cleaning Robot)
Home Automation (Alarm System)



Server
Storage

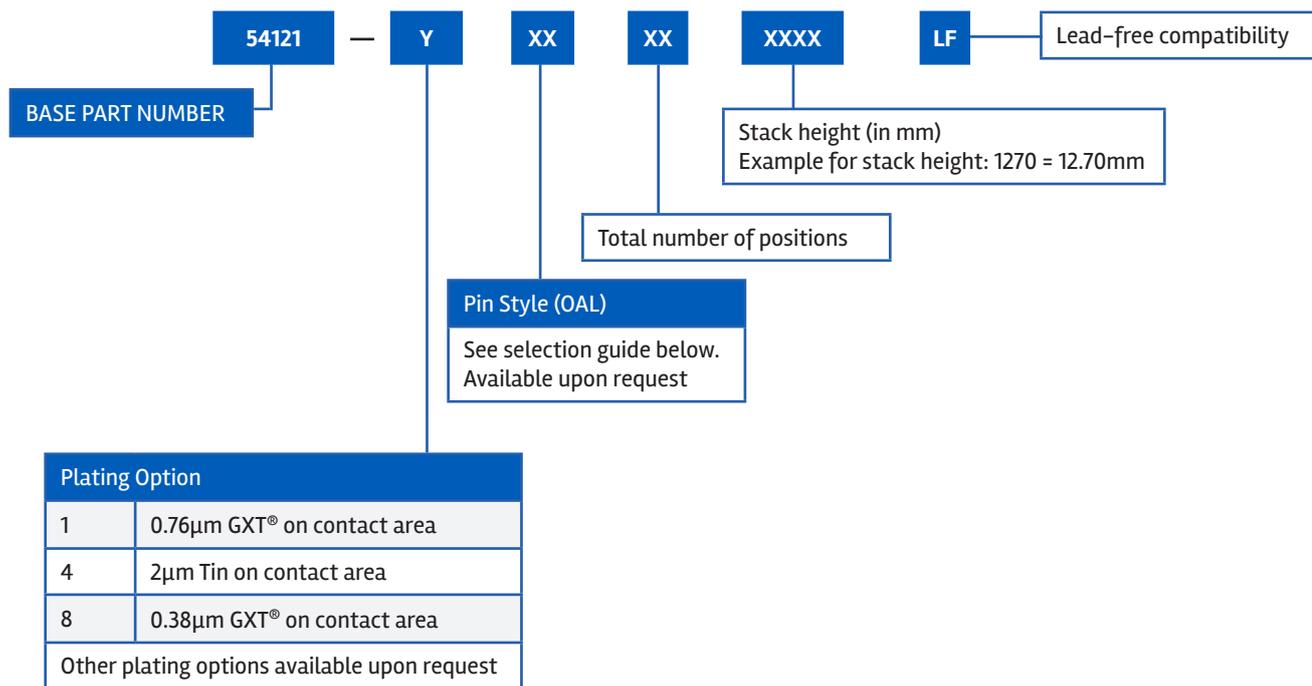


Robotics
Programmable Logic Controller (PLC)
Power Tool

PART NUMBERS

Description	Part Numbers
Unshrouded Stacking Header, Vertical, Single Row, TMT	54121
Unshrouded Stacking Header, Vertical, Single Row, Press-Fit	10124323
Unshrouded Stacking Header, Vertical, Double Row, TMT	54122
Unshrouded Stacking Header, Vertical, Double Row, SMT	54242
Unshrouded Stacking Header, Vertical, Double Row, Press-Fit	10112620

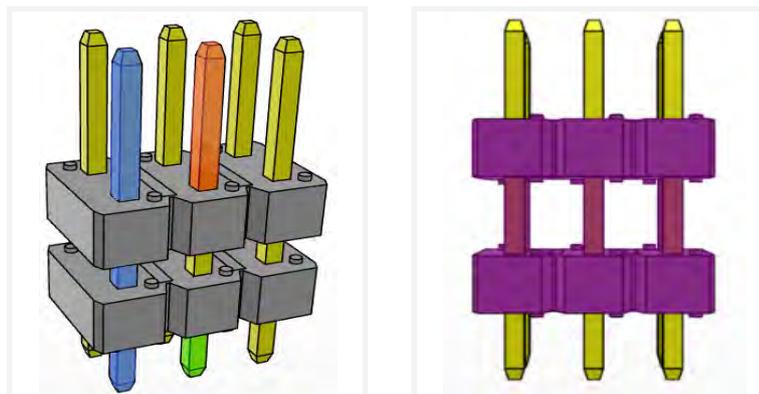
PART NUMBER SELECTOR – STACKING UNSHROUDED HEADERS



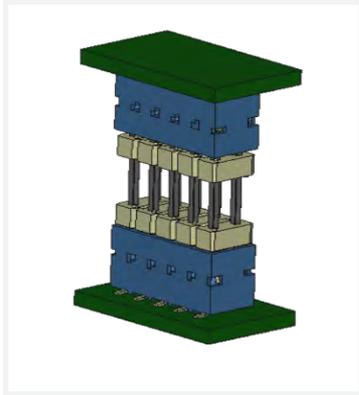
PART OVERVIEW

- **Mating Length:** The length of the connector part that inserts into the receptacle, ensuring a secure electrical connection
- **Solder Tail:** The part of the connector used for soldering onto the printed circuit board, ensuring a secure attachment
- **OAL (Overall Length):** The total length of the connector, including the mating length and solder tail, determining the overall size of the connector
- **Stack Height:** The total stack height of the connectors when assembled, influencing the overall arrangement of electronic components (between housing)

54112, 54122 – Stacking Headers – Double Row – Through Hole

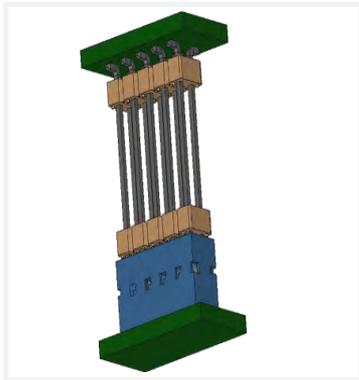


STANDARD CONFIGURATION A



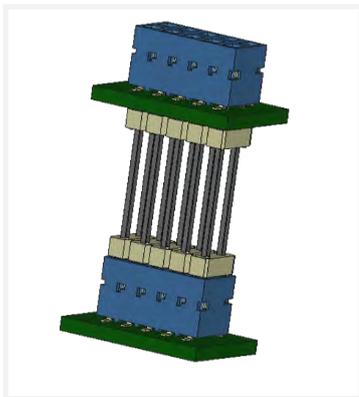
Optimal OAL Formula*: Your Board-to-Board Distance – 3.40mm

STANDARD CONFIGURATION B



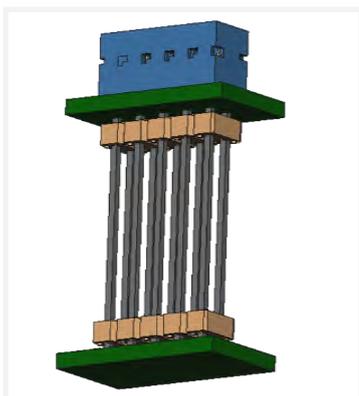
Optimal OAL Formula*: Your Board-to-Board distance – 1.70mm

STANDARD CONFIGURATION C



Optimal OAL Formula*: Your Board-to-Board Distance
+ your PCB thickness
+ 5.50mm

STANDARD CONFIGURATION D



Optimal OAL Formula*: Your Board-to-Board Distance
+ your PCB thickness
+ 7.20mm

This calculation formula is applicable only with low-profile DUBOX receptacles (7.00mm high)

BASICBRGSTKSTKUH123E44

BergStik® Headers Right-Angle Unshrouded

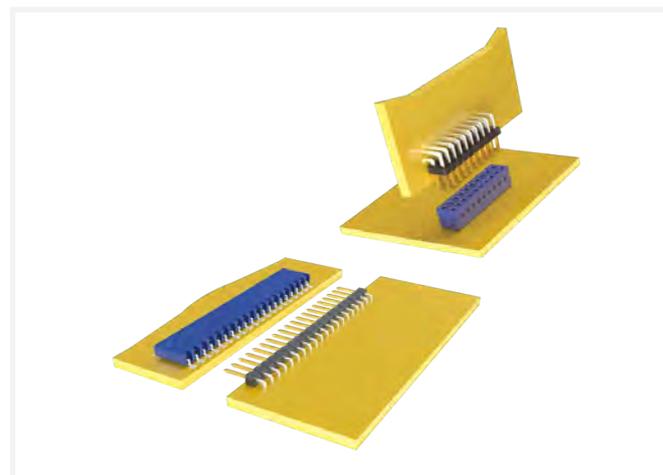
2.54MM PITCH

VERSATILE HEADERS WITH BREAKAWAY DESIGN

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- Same PCB layout for Through-Hole and PF versions
- Multiple termination options: SMT, THT, PIP
- Fully compatible with Dubox® PCB receptacles



TARGET MARKETS



FEATURES

- High temperature thermoplastic material
- Customizable height
- Blank 0.64mm square contacts present four surfaces of equal quality
- Standoff design
- Duplex plating
- Tin-lead plating in press-fit area
- Press-fit designed to fit 1.02mm diameter hole, solder-to-board products
- Meets DIN 41651 specification, HE 13, and BT D2632

BENEFITS

- Re-flow compatible
- Cater to a wide range of applications
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- Allows cleaning to remove soldering contamination
- Cost efficient
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- High retention force onto PCB
- Same layout on THT and Press-fit
- Qualified product

TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature thermoplastic
- Flammability Rating: UL94V-0
- Pin: Phosphor Bronze
- Plating: Gold / GXT® or Tin over 1.27µm (50µin) Nickel

MECHANICAL PERFORMANCE

- Pin Retention Force to Housing: 9N min.

ELECTRICAL PERFORMANCE

- Current Rating: 3A continuous 2A DC max. per contact for fully energized connector
- Insulation Resistance: 5000MΩ min.
- Dielectric Withstanding Voltage: 1500Vrms min.

ENVIRONMENTAL

- Operating Temperature Range: -65°C to +125°C

SPECIFICATIONS

- Product Specification: BUS-12-050 / BUS-12-144 (duplex plated) / BUS-12-117 (press-fit)

APPROVALS & CERTIFICATION

- UL Approval: LR46923

PACKAGING

- Poly bags
- Optional: Tubes or Tape and Reel with pick-up cap

TOOLING INFORMATION

- Insertion tool: 30AWG to 20AWG

TARGET MARKETS/APPLICATIONS



Personal Care Devices (Air Dryer)
Home Care Devices (Cleaning Robot)
Home Automation (Alarm System)



Server
Storage



Robotics
Programmable Logic Controller (PLC)
Power Tool

PART NUMBERS

Description	Part Numbers
Unshrouded Header, Horizontal, Single Row, TMT/PIP	77315
Unshrouded Header, Horizontal, Single Row, SMT	10119333
Unshrouded Header, Horizontal, Double Row, TMT/PIP	77317
Unshrouded Header, Horizontal, Double Row, SMT	10118084

PART NUMBER SELECTOR – RIGHT-ANGLE UNSHROUDED HEADERS

77315 – Y – XX – XX – LF — Lead-free compatibility

BASE PART NUMBER

Plating Option	
1	0.76µm GXT® on contact area
4	2µm tin on contact area
8	0.38µm GXT® on contact area
Other plating options available upon request	

Total number of positions

Pin Style	
01	Mating side = 5.72mm Solder side = 2.57mm
18	Mating side = 5.84mm Solder side = 3.05mm
Other pin styles available upon request	

BASICSRGSTRKAUHI23EA4

BergStik® SHUNTS Board/Wire-to-Board Connectors

RELIABLE DESIGN, ENHANCED RETENTION

Amphenol's BergStik® SHUNTS has a comprehensive and extensive solution designed with solder tails self center on circuit pads to assure coplanarity. A locating feature helps to maintain alignment for soldering and facilitates robot placement.

- Dual beam contact design to ensure high reliable electrical performances
- Contact pre-stressed that requires low insertion force required
- 4 wall contact design for signal protection



FEATURES

- Dual beam contact design
- Pre-stressed contact
- Mates with very short pins (5mm) and are stackable end-to-end and side-by-side
- Floating solder tails with self-centering on the circuit pads
- 4 wall contact design
- Duplex plating
- Locating feature available
- High temperature thermoplastic material
- Compliant to DIN41651 specifications, HE13 and BT D2632

BENEFITS

- Highly reliable electrical performances
- Low insertion force
- Suitable for mezzanine applications and meets different application requirements
- Assures coplanarity
- Improved signal protection
- Cost efficient
- Maintains the alignment for soldering and facilitates robotic placement
- Compatible with Infrared and Vapor phase reflow
- Qualifies industry specific standards

TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature, Black thermoplastic
- Flammability Rating: UL94V-0
- Pin: Phosphor Bronze
- Plating: Gold or Tin over 1.27µm (50µin) Nickel

MECHANICAL PERFORMANCE

- Mating cycles (durability): 50-Gold, 25-Tin
- Insertion force:
 - 450gf max. per gold contact
 - 500gf max. per tin-lead contact
- Withdrawal force:
 - 30gf min. per gold contact
 - 30gf min. per tin-lead contact
- Insertion depth:
 - 4.85 mm (.191in.) min. [provides 3.81 mm (.015in.) wipe] – Low profile

ELECTRICAL PERFORMANCE

- Current Rating: 2.5A max. per contact
- Insulation Resistance: 50,000MΩ min.
- Contact Resistance: 15MΩ max. initial, 20MΩ max. after environmental tests
- Dielectric Withstanding Voltage: 800V

SPECIFICATIONS

-  File No. E66906
-  File No. LR46923
- Product Drawing: By 5-digit base part number
- Product Specification:
 - BUS-12-071-gold
 - BUS-12-070-tin

ENVIRONMENTAL

- Operating Temperature Range: -65°C to +125°C

APPROVALS & CERTIFICATION

- This product is RoHS compatible according to the European Union Directive 2002/95/IEC

PACKAGING

- Plastic bags

TARGET MARKETS/APPLICATIONS



Personal Care Devices (Air Dryer)
Home Care Devices (Cleaning Robot)
Home Automation (Alarm System)

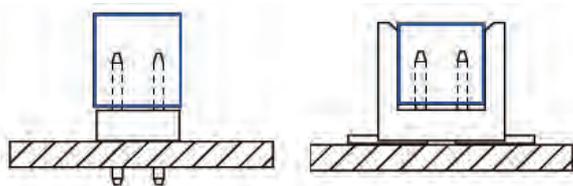


Server
Storage



Robotics
Programmable Logic Controller (PLC)
Power Tool

TYPICAL APPLICATIONS



PART NUMBERS

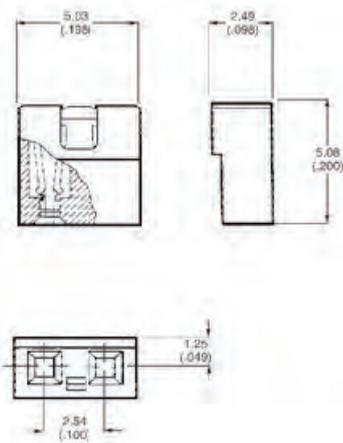
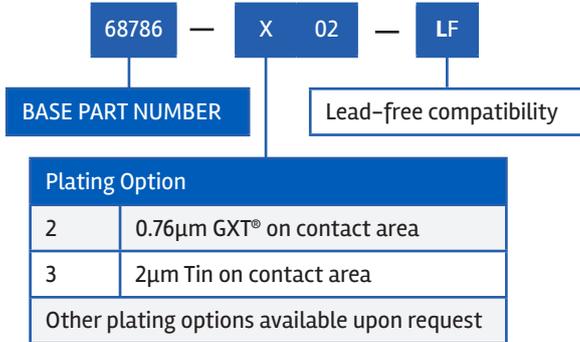
Description	Part Series
Shunt Low Profile, Single Row	68786
Shunt Low Profile, Double Row, Multi-position	87606
Shunt Standard, Single Row	63429

PART NUMBER SELECTOR SHUNTS

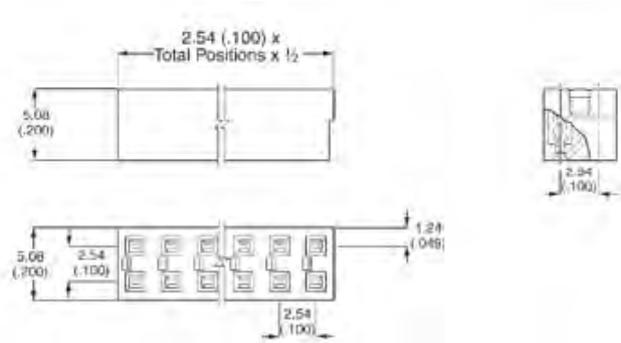
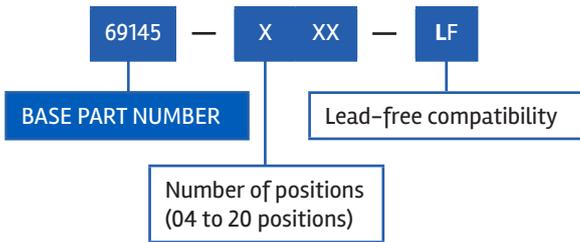
CORE RANGE

68786 — 202LF

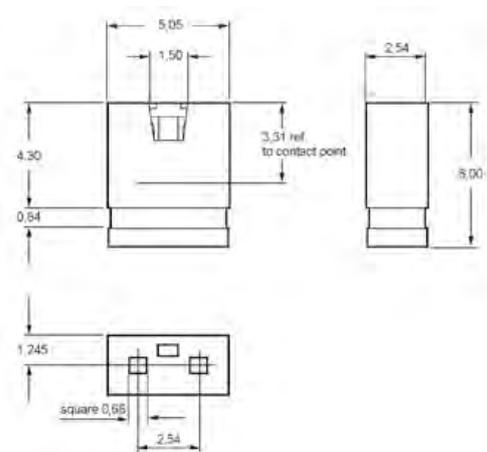
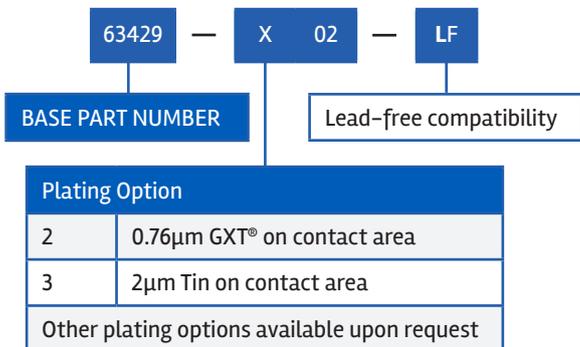
LOW PROFILE



MULTI-POSITION



STANDARD



BASISBRGSHUNTS1223EA4