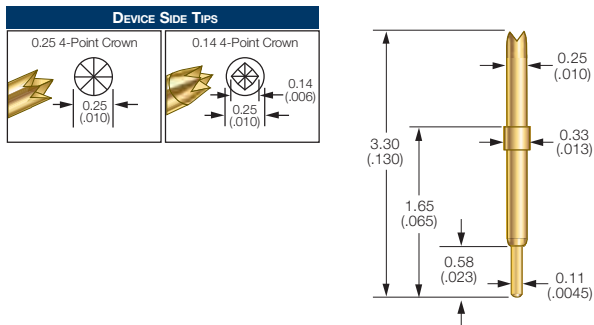


Semiconductor Probes 0.40MM PITCH

101303 PROBE




PROBE SPECIFICATIONS

Minimum Device Pitch: 0.40mm (.016)
Signal Path Length: 2.92mm (.115)
Spring Force per Contact:
 202 & 210 - 21.2g (0.75 oz.) @ 0.38mm (.015) travel
 207 & 211 - 16.7g (0.59 oz.) @ 0.38mm (.015) travel
Device Compliance: 0.25mm (.010)
DUT Board Compliance: 0.15mm (.006)
Operating Temperature:
 -55°C to 150°C for stainless steel spring
 -55°C to 120°C for music wire spring
Insertions: > 500,000

MATERIALS

Barrel: Beryllium copper, Endura plating
Spring: Stainless steel, gold plated - 17g spring;
 Music wire, gold plated - 21g spring
Device Side Contact: Full-hard beryllium copper, gold plated
Board Side Contact: Full-hard beryllium copper, gold plated

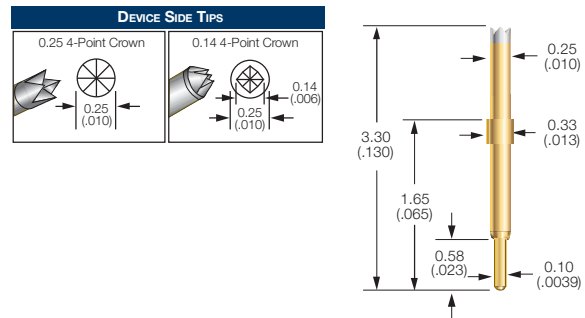
ELECTRICAL SPECIFICATIONS

Typical Resistance: < 40 mΩ
Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a:  @ 0.4mm pitch
Characteristic Impedance: 54 Ω
Time Delay: 19 pSec
Loop Inductance: 1.02 nH
Signal Pin to Return Capacitance: 0.35 pF
-1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip	Spring Force
101303-202	0.25 4-pt. Crown	Radius	21.2g
101303-207	0.25 4-pt. Crown	Radius	16.7g
101303-210	0.14 4-pt. Crown	Radius	21.2g
101303-211	0.14 4-pt. Crown	Radius	16.7g

101795 PROBE




PROBE SPECIFICATIONS

Minimum Device Pitch: 0.40mm (.016)
Signal Path Length: 2.92mm (.115)
Force per Contact: 21g (0.74 oz.) @ 0.38mm (.015) travel
Device Compliance: 0.25mm (.010)
DUT Board Compliance: 0.15mm (.006)
Operating Temperature: -55°C to 120°C
Insertions: > 500,000

MATERIALS

Barrel: Brass, gold plating
Spring: Music wire, gold plated
Device Side Contact: Homogeneous alloy
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 50 mΩ
Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a:  @ 0.4mm pitch
Characteristic Impedance: 54 Ω
Time Delay: 19 pSec
Loop Inductance: 1.02 nH
Signal Pin to Return Capacitance: 0.35 pF
-1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

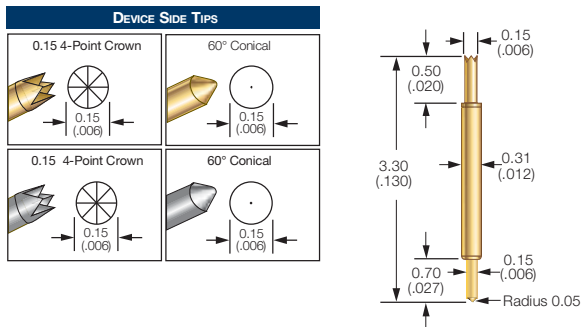
Part No.	Device Side Tip	PCB Side Tip	Spring Force
101795-H2	0.25 4-pt. Crown	Radius	21g
101795-H10	0.14 4-pt. Crown	Radius	21g

Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

Specifications subject to change without notice. Dimensions in millimeters (inches)

0.40MM PITCH Semiconductor Probes

623-0286 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.40mm (.016)
Signal Path Length: 2.80mm (.110)
Force per Contact: 19.2g (0.68 oz.) @ 0.50mm (.020) travel
Device Compliance: 0.30mm (.012)
DUT Board Compliance: 0.20mm (.008)
Operating Temperature: -55°C to 120°C
Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
Spring: Music wire, gold plated
Device Side Contact: Carbon steel, gold plated or Homogeneous alloy
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

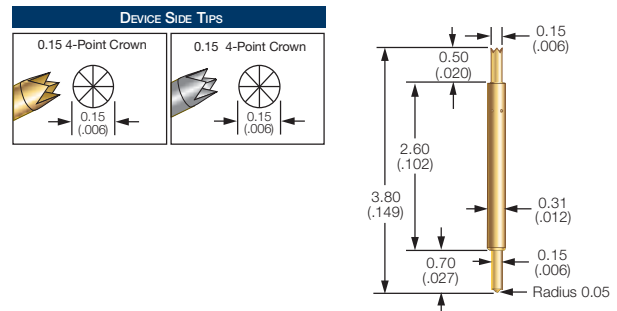
Typical Resistance: < 60 mΩ
Current Carrying Capacity: 2.5 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: R S R @ 0.4mm pitch
Characteristic Impedance: 49 Ω
Time Delay: 20 pSec
Loop Inductance: 0.98 nH
Signal Pin to Return Capacitance: 0.41 pF
-1 dB Insertion Loss Bandwidth: > 17.5 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip	Spring Force
623-0286-02	0.15 4-pt. Crown	Conical	19.2g
623-0286-03	Conical	Conical	19.2g
623-0286-H2	0.15 4-pt. Crown	Conical	19.2g
623-0286-H3	Conical	Conical	19.2g

H2 & H3 have the homogeneous alloy on the device side of the contact.

623-0334 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.40mm (.016)
Signal Path Length: 3.30mm (.130)
Force per Contact: 25g (.88 oz.) @ 0.50mm (.020) travel
Device Compliance: 0.30mm (.012)
DUT Board Compliance: 0.20mm (.008)
Operating Temperature: -55°C to 120°C
Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
Spring: Music wire, gold plated
Device Side Contact: Carbon steel, gold plated or Homogeneous alloy
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 60 mΩ
Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: R S R @ 0.4mm pitch
Characteristic Impedance: 47 Ω
Time Delay: 22 pSec
Loop Inductance: 1.01 nH
Signal Pin to Return Capacitance: 0.46 pF
-1 dB Insertion Loss Bandwidth: > 15.4 GHz

HOW TO ORDER

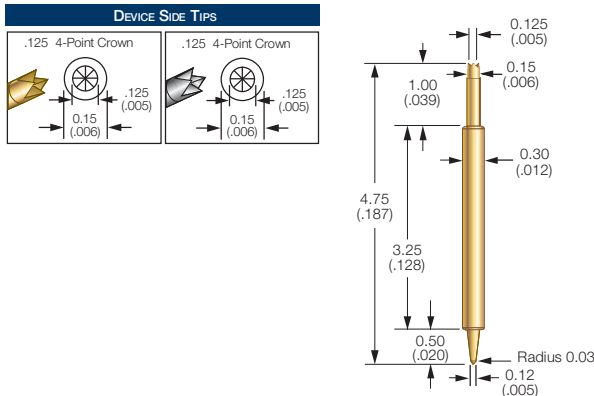
Part No.	Device Side Tip	PCB Side Tip	Spring Force
623-0334-01	0.15 4-pt. Crown	Conical	25g
623-0334-H1	0.15 4-pt. Crown	Conical	25g

H1 has the homogeneous alloy on the device side of the contact.
 Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

Specifications subject to change without notice. Dimensions in millimeters (inches)

Semiconductor Probes 0.40MM PITCH

200-000940 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.40mm (.016)
 Signal Path Length: 4.05mm (.160)
 Force per Contact: 26g (0.92 oz.) @ 0.70mm (.027) travel
 Device Compliance: 0.50mm (.020)
 DUT Board Compliance: 0.20mm (.008)
 Operating Temperature: -55°C to 120°C
 Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
 Spring: Music wire, gold plated
 Device Side Contact: Full-hard beryllium copper, gold plated or Homogeneous alloy
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 80 mΩ
 Current Carrying Capacity: 1.5 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 0.4mm pitch
 Characteristic Impedance: 44 Ω
 Time Delay: 21 pSec
 Loop Inductance: 0.95 nH
 Signal Pin to Return Capacitance: 0.48 pF
 -1 dB Insertion Loss Bandwidth: > 20 GHz

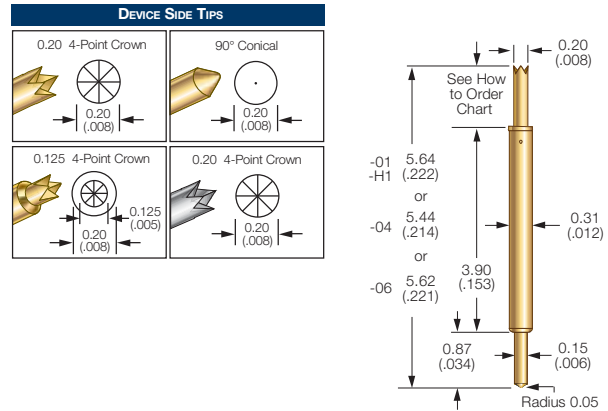
HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip	Spring Force
200-000940-001	0.125 4-pt. Crown	Conical	26g
200-000940-H1	0.125 4-pt. Crown	Conical	26g

H1 has the homogeneous alloy on the device side of the contact.
 Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

Specifications subject to change without notice. Dimensions in millimeters (inches)

623-0248 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.40mm (.016)
 Signal Path Length:
 01 & H1 - 5.04mm (.198)
 04 - 4.84mm (.190)
 06 - 5.02mm (.198)
 Force per Contact: 25g (.88 oz.) @ 0.60mm (.024) travel
 Device Compliance: 0.40mm (.016)
 DUT Board Compliance: 0.20mm (.008)
 Operating Temperature: -55°C to 120°C
 (Higher operating temperature probes available, consult factory)
 Insertions: > 500,000

MATERIALS

Barrel: Brass, gold plated
 Spring: Music wire, gold plated
 Device Side Contact:
 01 & 06 Full-hard beryllium copper, gold plated
 04 Carbon steel, gold plated
 H1 Homogeneous alloy
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance:
 01 & H1 < 60 mΩ
 04 & 06 < 50 mΩ
 Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 0.4mm pitch
 Characteristic Impedance: 46 Ω
 Time Delay: 30 pSec
 Loop Inductance: 1.38 nH
 Signal Pin to Return Capacitance: 0.67 pF
 -1 dB Insertion Loss Bandwidth: > 13.2 GHz

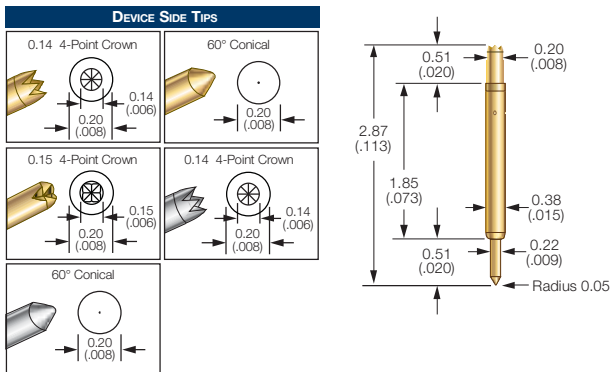
HOW TO ORDER

Part No.	Device Side Tip	Plunger Length	PCB Side Tip
623-0248-01	0.20 4-pt. Crown	0.87mm (.034)	Conical
623-0248-04	Conical	0.67mm (.026)	Conical
623-0248-06	0.125 4-pt. Crown	0.85mm (.033)	Conical
623-0248-H1	0.20 4-pt. Crown	0.87 mm (.034)	Conical

H1 has the homogeneous alloy on the device side of the contact.

0.50MM PITCH Semiconductor Probes

623-0249 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.50mm (.020)
 Signal Path Length: 2.49mm (.098)
 Force per Contact: 25g (.88 oz.) @ 0.38mm (.015) travel
 Device Compliance: 0.23mm (.009)
 DUT Board Compliance: 0.15mm (.006)
 Operating Temperature: -55°C to 120°C
 Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
 Spring: Music wire, gold plated
 Device Side Contact:
 01 & 03 Full-hard beryllium copper, gold plated
 02 Carbon steel, gold plated
 H1 & H2 Homogeneous alloy
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

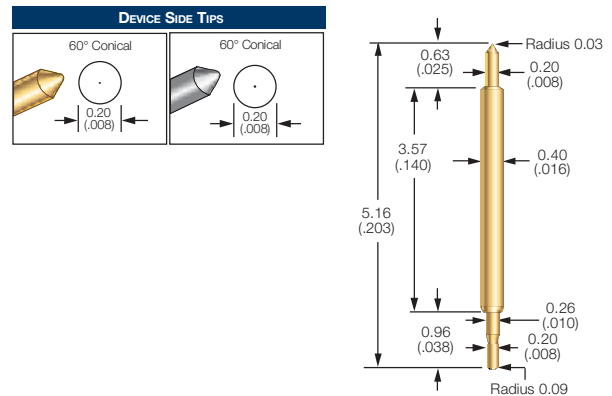
Typical Resistance: < 50 mΩ
 Current Carrying Capacity: 3.5 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 0.5mm pitch
 Characteristic Impedance: 50 Ω
 Time Delay: 18 pSec
 Loop Inductance: 0.89 nH
 Signal Pin to Return Capacitance: 0.36 pF
 -1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip	Spring Force
623-0249-01	0.14 4-pt Crown	Conical	25g
623-0249-02	Conical	Conical	25g
623-0249-03	0.15 4-pt Crown	Conical	25g
623-0249-H1	0.14 4-pt Crown	Conical	25g
623-0249-H2	Conical	Conical	25g

H1 & H2 have the homogeneous alloy on the device side of the contact.

623-0290 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.50mm (.020)
 Signal Path Length: 4.56mm (.180)
 Force per Contact: 40g (1.4oz.) @ 0.60mm (.024) travel
 Device Compliance: 0.45mm (.018)
 DUT Board Compliance: 0.15mm (.006)
 Operating Temperature: -55°C to 120°C
 (Higher operating temperature probes available, consult factory)
 Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plated
 Spring: Music wire, gold plated
 Device Side Contact: Carbon steel, gold plated or Homogeneous alloy
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: 01: < 50 mΩ & H1: < 40 mΩ
 Current Carrying Capacity: 3.5 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 0.5mm pitch
 Characteristic Impedance: 38 Ω
 Time Delay: 32 pSec
 Loop Inductance: 1.19 nH
 Signal Pin to Return Capacitance: 0.82 pF
 -1 dB Insertion Loss Bandwidth: > 9.6 GHz

HOW TO ORDER

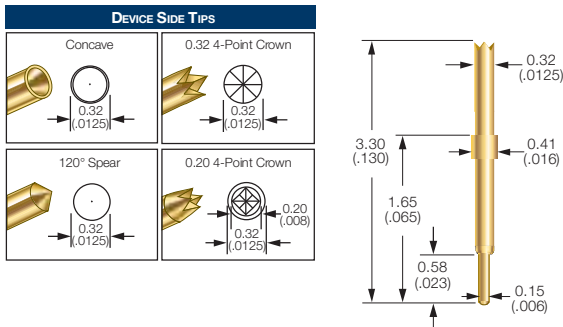
Part No.	Device Side Tip	PCB Side Tip	Spring Force
623-0290-01	Conical	Radius	40g
623-0290-H1	Conical	Radius	40g

H1 has the homogeneous alloy on the device side of the contact.
 Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

Specifications subject to change without notice. Dimensions in millimeters (inches)

Semiconductor Probes 0.50MM PITCH

101267 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.50mm (.020)
Signal Path Length: 2.92mm (.115)
Force per Contact: 24g (0.86 oz.), 27g (.94 oz.), 31.1g (1.10 oz.) or 37g (1.30 oz.) @ 0.38mm (.015) travel
Device Compliance: 0.23mm (.009)
DUT Board Compliance: 0.15mm (.006)
Operating Temperature:
 -55°C to 150°C for stainless steel spring
 -55°C to 120°C for music wire spring
Insertions: > 500,000

MATERIALS

Barrel: Full-hard beryllium copper, Endura plating
Spring:
 Stainless steel, gold plated – 24g & 27g spring
 Music wire, gold plated – 32g & 37g spring
Device Side Contact: Full-hard beryllium copper, gold plated
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

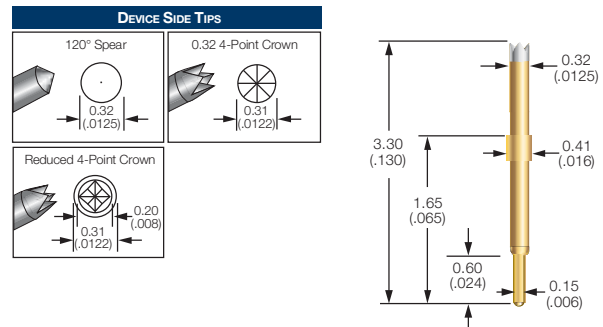
Typical Resistance: < 40 mΩ
Current Carrying Capacity: 3.5 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: R S R @ 0.5mm pitch
Characteristic Impedance: 61 Ω
Time Delay: 18 pSec
Loop Inductance: 1.12 nH
Signal Pin to Return Capacitance: 0.30 pF
-1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip	Spring Force
101267-200	Concave	Radius	24g
101267-202	0.32 4-pt. Crown	Radius	24g
101267-203	120° Spear	Radius	24g
101267-206	0.32 4-pt. Crown	Radius	31.1g
101267-208	0.20 4-pt. Crown	Radius	37g
101267-209	0.20 4-pt. Crown	Radius	27g

Specifications subject to change without notice. Dimensions in millimeters (inches)

623-0326 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.50mm (.020)
Signal Path Length: 2.9mm (.114)
Force per Contact: 25.3g (0.89 oz.) or 30g (1.06 oz.) @ 0.38mm (.015) travel
Device Compliance: 0.23mm (.009)
DUT Board Compliance: 0.15mm (.006)
Operating Temperature:
 -55°C to 150°C for stainless steel spring
 -55°C to 120°C for music wire spring
Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
Spring:
 Stainless steel, gold plated – 25.3g spring
 Music wire, gold plated – 30g spring
Device Side Contact: Homogeneous alloy
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 55 mΩ
Current Carrying Capacity: 3.5 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: R S R @ 0.5mm pitch
Characteristic Impedance: 61 Ω
Time Delay: 18 pSec
Loop Inductance: 1.12 nH
Signal Pin to Return Capacitance: 0.30 pF
-1 dB Insertion Loss Bandwidth: > 20 GHz

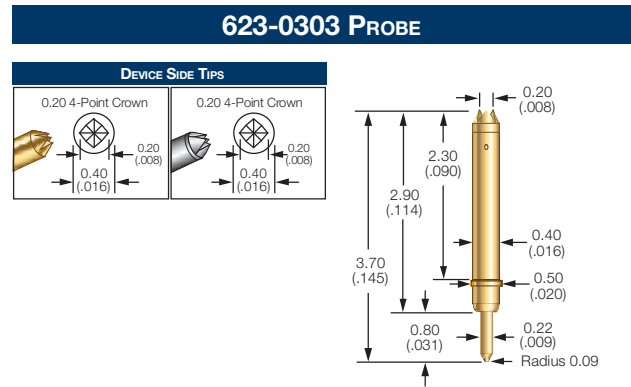
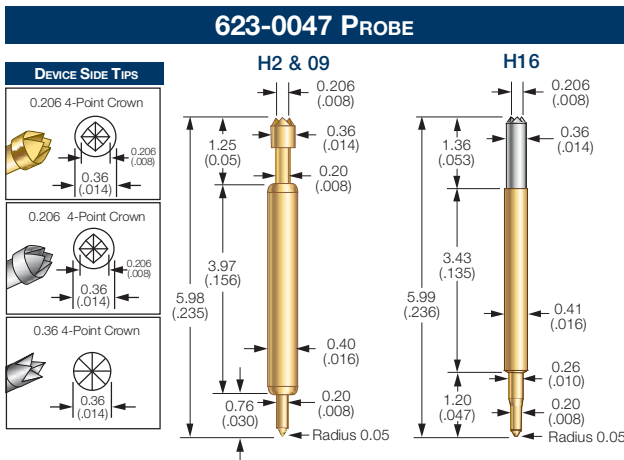
HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip	Spring Force
623-0326-H3	120° Spear	Radius	25.3g
623-0326-H6	0.32 4-pt. Crown	Radius	25.3g
623-0326-H9	0.20 4-pt. Crown	Radius	30g

H3, H6 & H9 has the homogeneous alloy on the device side of the contact.

Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

0.50MM & 0.65MM PITCH Semiconductor Probes



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.50mm (.020)
 Signal Path Length: 5.28mm (.208)
 Force per Contact:
 09 - 32g (1.1 oz.) @ 0.70mm (.028) travel
 H2 - 22g (0.78 oz.) @ 0.70mm (.028) travel
 H16 - 35g (1.24 oz.) @ 0.70mm (.028) travel
 Device Compliance: 0.40mm (.016)
 DUT Board Compliance: 0.30mm (.012)
 Operating Temperature:
 -55°C to 150°C for stainless steel spring
 -55°C to 120°C for music wire spring
 (Higher operating temperature probes available, consult factory)
 Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
 Spring:
 09 & H2 - Stainless steel, gold plated
 H16 - Music wire, gold plated
 Device Side Contact: Full-hard beryllium copper, gold plated or Homogeneous alloy
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: H2 & H9 < 45 mΩ; H16 < 50 mΩ
 Current Carrying Capacity: 2.2 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 0.65mm pitch
 Characteristic Impedance: 50 Ω
 Time Delay: 31 pSec
 Loop Inductance: 1.56 nH
 Signal Pin to Return Capacitance: 0.62 pF
 -1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER		
Part No.	Device Side Tip	PCB Side Tip
623-0047-09	0.206 4-pt Crown	Conical
623-0047-H2	0.36 4-pt Crown	Conical
623-0047-H16	0.206 4-pt Crown	Conical

H2 & H16 has the homogeneous alloy on the device side of the contact.

PROBE SPECIFICATIONS

Minimum Device Pitch: 0.65mm (.026)
 Signal Path Length: 3.10mm (.122)
 Force per Contact: 30g (1.06 oz.) @ 0.60mm (.024) travel
 Device Compliance: 0.40mm (.016)
 DUT Board Compliance: 0.20mm (.008)
 Operating Temperature: -55°C to 120°C
 (Higher operating temperature probes available, consult factory)
 Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
 Spring: Music wire, gold plated
 Device Side Contact: Carbon steel, gold plated or Homogeneous alloy
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 40 mΩ
 Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 0.65mm pitch
 Characteristic Impedance: 49 Ω
 Time Delay: 17 pSec
 Loop Inductance: 0.85 nH
 Signal Pin to Return Capacitance: 0.35 pF
 -1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER		
Part No.	Device Side Tip	PCB Side Tip
623-0303-01	0.20 4-pt. Crown	Conical
623-0303-H1	0.20 4-pt. Crown	Conical

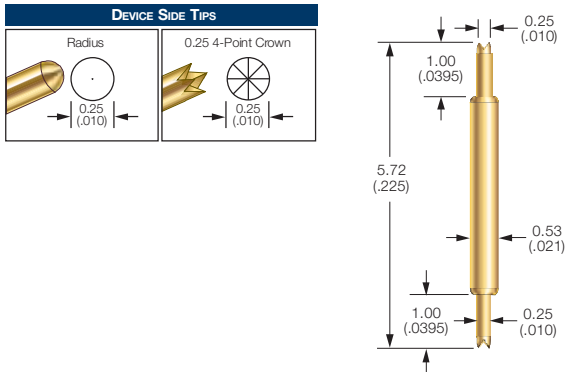
H1 has the homogeneous alloy on the device side of the contact.

Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

Specifications subject to change without notice. Dimensions in millimeters (inches)

Semiconductor Probes 0.65MM & 0.80MM PITCH

100938 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.65mm (.026)
Signal Path Length: 4.75mm (.187)
Force per Contact: 31g (1.1oz.) @ 0.97mm (.038) travel
Device Compliance: 0.48mm (.019)
DUT Board Compliance: 0.48mm (.019)
Operating Temperature: -55°C to 150°C
Insertions: > 500,000

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, gold plated
Device Side Contact: Full-hard beryllium copper, gold plated
Board Side Contact: Full-hard beryllium copper, gold plated

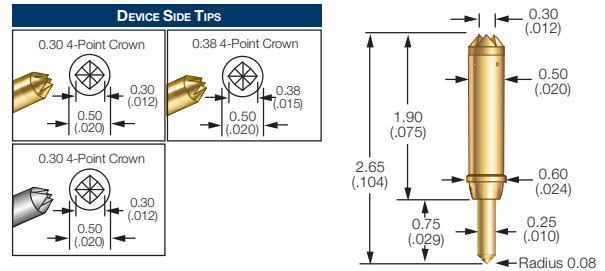
ELECTRICAL SPECIFICATIONS

Typical Resistance: < 70 mΩ
Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: **R S R** @ 0.65mm pitch
Characteristic Impedance: 50 Ω
Time Delay: 31 pSec
Loop Inductance: 1.46 nH @ 0.75mm pitch
Signal Pin to Return Capacitance: 0.10 pF
-1 dB Insertion Loss Bandwidth: > 2.4 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip
100938-001	0.25 4-pt Crown	0.25 4-pt Crown
100938-014	0.25 4-pt Crown	Radius
100938-016	Radius	Radius

623-0270 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.80mm (.031)
Signal Path Length: 2.15mm (0.085)
Force per Contact: 27.5g (0.97 oz.) @ 0.50mm (.020) travel
Device Compliance: 0.30mm (.012)
DUT Board Compliance: 0.20mm (.008)
Operating Temperature: -55°C to 120°C
 (Higher operating temperature probes available, consult factory)
Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
Spring: Music Wire, gold plated
Device Side Contact:
 01 & 03 Carbon steel, gold plated
 H1 Homogeneous alloy
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 40 mΩ
Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: **R S R** @ 0.8mm pitch
Characteristic Impedance: 44 Ω
Time Delay: 14 pSec
Loop Inductance: 0.59 nH
Signal Pin to Return Capacitance: 0.31 pF
-1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip
623-0270-01	0.30 4-pt. Crown	Conical
623-0270-03	0.38 4-pt. Crown	Conical
623-0270-H1	0.30 4-pt. Crown	Conical

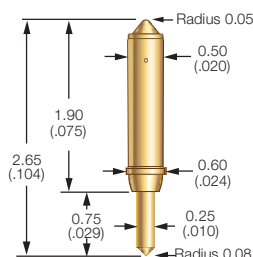
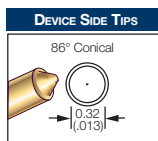
H1 has the homogeneous alloy on the device side of the contact.

Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

Specifications subject to change without notice. Dimensions in millimeters (inches)

0.80MM PITCH Semiconductor Probes

623-0271 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.80mm (.031)
Signal Path Length: 2.15mm (0.085)
Force per Contact: 27.5g (0.97 oz.) @ 0.50mm (.020) travel
Device Compliance: 0.30mm (.012)
DUT Board Compliance: 0.20mm (.008)
Operating Temperature: -55°C to 120°C
Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
Spring: Music wire, gold plated
Device Side Contact: Carbon steel, gold plated
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

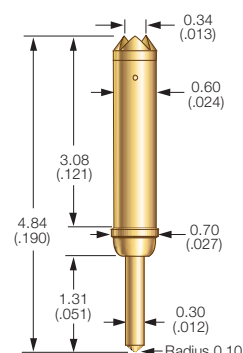
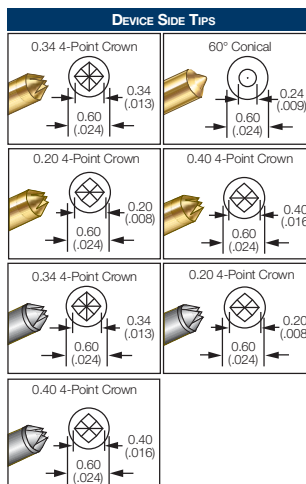
Typical Resistance: < 40 mΩ
Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: R S R @ 1.0 mm pitch
Characteristic Impedance: 54 Ω
Time Delay: 13 pSec
Loop Inductance: 0.72 nH
Signal Pin to Return Capacitance: 0.25 pF
-1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip
623-0271-01	Conical	Conical

Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

623-0195 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.80mm (.031)
Signal Path Length: 4.04mm (.159)
Force per Contact: 33.4g (1.18 oz.) @ 0.80mm (.031) travel
Device Compliance: 0.50mm (.020)
DUT Board Compliance: 0.30mm (.012)
Operating Temperature: -55°C to 120°C
 (Higher operating temperature probes available, consult factory)
Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
Spring: Music wire, gold plated
Device Side Contact:
 02 & 03 Carbon steel, gold plated
 08 & 09 Full-hard beryllium copper, gold plated
 H2, H8, & H9 Homogeneous alloy
Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: 03 < 35 mΩ;
 02, 08, 09, H2, H8, & H9 < 50 mΩ
Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
Pattern 2a: R S R @ 0.8mm pitch
Characteristic Impedance: 37 Ω
Time Delay: 23 pSec
Loop Inductance: 0.86 nH
Signal Pin to Return Capacitance: 0.62 pF
-1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

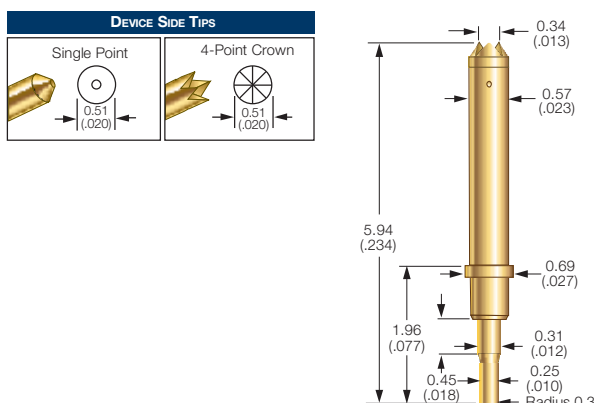
Part No.	Device Side Tip	PCB Side Tip
623-0195-02	0.34 4-pt. Crown	Conical
623-0195-03	Conical	Conical
623-0195-08	0.20 4-pt. Crown	Conical
623-0195-09	0.40 4-pt. Crown	Conical
623-0195-H2	0.34 4-pt. Crown	Conical
623-0195-H8	0.20 4-pt. Crown	Conical
623-0195-H9	0.40 4-pt. Crown	Conical

H2, H8 & H9 has the homogeneous alloy on the device side of the contact.

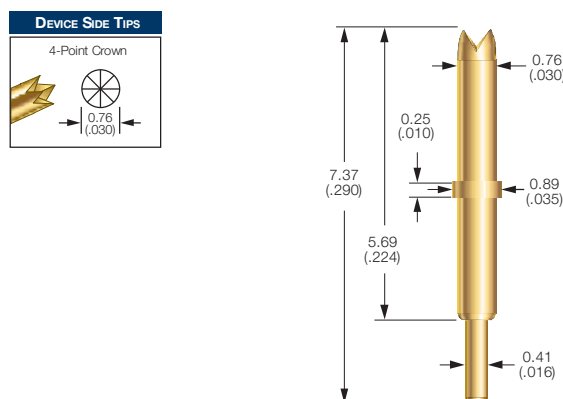
Specifications subject to change without notice. Dimensions in millimeters (inches)

Semiconductor Probes 0.80MM & 1.00MM PITCH

101785 PROBE



101312 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 0.80mm (.031)
 Signal Path Length: 5.21mm (.205)
 Force per Contact: 35.4g (1.25 oz.) @ 0.74mm (.029) travel
 Device Compliance: 0.33mm (.013)
 DUT Board Compliance: 0.41mm (.016)
 Operating Temperature: -55°C to 150°C
 Insertions: > 500,000

MATERIALS

Barrel: Full-hard beryllium copper, Endura plating
 Spring: Stainless steel, gold plated
 Device Side Contact: Full-hard beryllium copper, gold plated
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 40 mΩ
 Current Carrying Capacity: 5 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** at 0.8mm pitch
 Characteristic Impedance: 38 Ω
 Time Delay: 27 pSec
 Loop Inductance: 1.03 nH
 Signal Pin to Return Capacitance: 0.71 pF
 -1 dB Insertion Loss Bandwidth: > 10 GHz

PROBE SPECIFICATIONS

Minimum Device Pitch: 1.00mm (.039)
 Signal Path Length: 6.97mm (.274)
 Force per Contact: 31g (1.1 oz.) @ 1.02mm (.040) travel
 Device Compliance: 0.25mm (.010)
 DUT Board Compliance: 0.76mm (.030)
 Operating Temperature: -55°C to 150°C
 Insertions: > 500,000

MATERIALS

Barrel: Full-hard beryllium copper, Endura plating
 Spring: Stainless steel, gold plated
 Device Side Contact: Full-hard beryllium copper, gold plated
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 40 mΩ
 Current Carrying Capacity: 5 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** at 1.00mm pitch
 Characteristic Impedance: 36 Ω
 Time Delay: 33 pSec
 Loop Inductance: 1.19 nH
 Signal Pin to Return Capacitance: 0.92 pF
 -1 dB Insertion Loss Bandwidth: > 10 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip
101785-001	Single Point	Radius

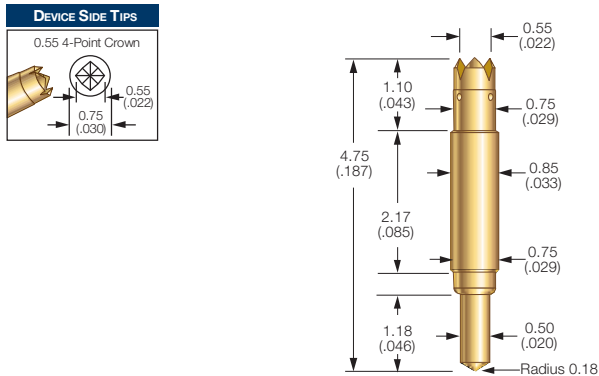
HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip
101312-001	0.76 4-pt. Crown	Radius

Specifications subject to change without notice. Dimensions in millimeters (inches)

1.00MM & 1.27MM PITCH Semiconductor Probes

623-0117 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 1.00mm (.039)
 Signal Path Length: 3.90mm (.154)
 Force per Contact: 35.5g (1.25 oz.) @ 0.85mm (.033) travel
 Device Compliance: 0.45mm (.018)
 DUT Board Compliance: 0.40mm (.016)
 Operating Temperature: -55°C to 120°C
 Insertions: > 500,000

MATERIALS

Barrel: Phosphorous bronze, gold plating
 Spring: Music wire, gold plated
 Device Side Contact: Full-hard beryllium copper, gold plated
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

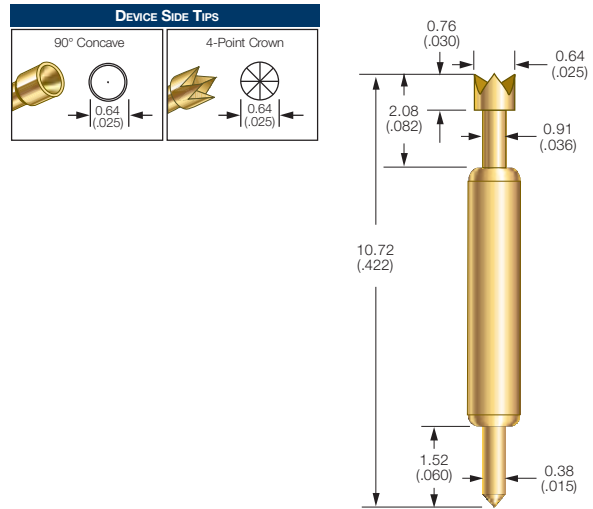
Typical Resistance: < 60 mΩ
 Current Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 1.27mm pitch
 Characteristic Impedance: 43 Ω
 Time Delay: 24 pSec
 Loop Inductance: 1.02 nH
 Signal Pin to Return Capacitance: 0.56 pF
 -1 dB Insertion Loss Bandwidth: > 20 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip
623-0117-02	0.55 4-pt Crown	Conical

Prolonged exposure of greater than one hour reduces the maximum operating temperature of music wire springs to 85°C.

100785 PROBE



PROBE SPECIFICATIONS

Minimum Device Pitch: 1.27mm (.050)
 Signal Path Length: 9.2mm (.362)
 Force per Contact: 42.5g (1.5 oz.) @ 1.52mm (.060) travel
 Device Compliance: 0.76mm (.030)
 DUT Board Compliance: 0.76mm (.030)
 Operating Temperature: -55°C to 150°C
 Insertions: > 250,000

MATERIALS

Barrel: Full-hard beryllium copper, gold plated
 Spring: Stainless steel, gold plated
 Device Side Contact: Full-hard beryllium copper, gold plated
 Board Side Contact: Full-hard beryllium copper, gold plated

ELECTRICAL SPECIFICATIONS

Typical Resistance: < 50 mΩ
 Carrying Capacity: 3 amps continuous
 (Current DC carry capability @ 80° C steady state)
 Pattern 2a: **R S R** @ 1.27mm pitch
 Characteristic Impedance: 41 Ω
 Time Delay: 47 pSec
 Loop Inductance: 1.93 nH
 Signal Pin to Return Capacitance: 1.15 pF
 -1 dB Insertion Loss Bandwidth: > 16.2 GHz

HOW TO ORDER

Part No.	Device Side Tip	PCB Side Tip
100785-002	.064 4-pt. Crown	Conical
100785-003	90° Concave	Conical

Specifications subject to change without notice. Dimensions in millimeters (inches)