

# 3M™ Pak 10 Socket

1 mm Straight and Right Angle, Surface Mount

PK10 Series



- 1 mm pitch connector system
- Stacked, Horizontal or Vertical Mating
- Low profile 5 mm mated height
- Surface mount retention clips reduce stress on surface mount leads
- Keyed design helps prevent mating misalignment
- Hard Tray and Vacuum pickup for automated assembly placement
- RoHS Compliant. See the Regulatory Information Appendix (RIA) in the “RoHS Compliance” section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information (RIA E1 and C1 apply)

Date Modified: December 11, 2017

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## Physical

### Insulation:

Material: Glass Filled LCP

Flammability: UL 94V-0

Color: White

### Materials:

Contact: Copper Alloy

Retention Clips: Copper Alloy

### Contact Plating:

Underplating: 120 μ” [ 3.0 μm ] Nickel

Wiping Area: 2 μ” [ 0.05 μm ] min. Gold

Solder Tails: Gold Flash

**Retention Clip Plating:** Gold Flash over 120 μ” [ 3.0 μm ] Nickel

Marking: Orientation Triangle

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## Electrical

**Current Rating:** 0.5 A

**Contact Resistance:** 50 mΩ max

**Insulation Resistance:** 1 × 10<sup>3</sup> MΩ min at 500 V<sub>DC</sub>

**Dielectric withstanding Voltage:** 315 V<sub>AC</sub> for 1 minute

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## Environmental

**Temperature Rating:** -55°C to +85°C

**Process Rating:** 260°C per J-STD-020C

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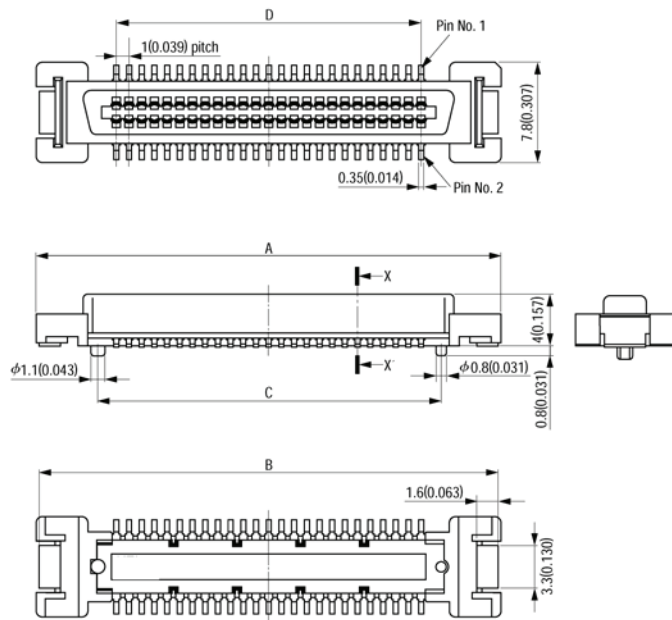
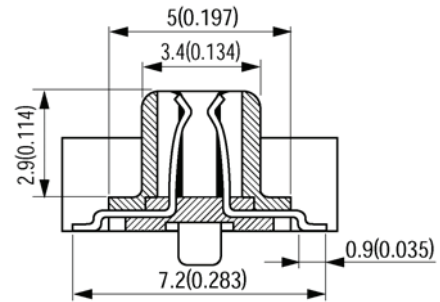
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### Straight Surface Mount

Contact Quantity	A	B	C	D
30	26.50	26.10	17.00	14.00
	[1.043]	[1.028]	[0.669]	[0.551]
50	36.50	36.10	27.00	24.00
	[1.437]	[1.421]	[1.063]	[0.945]
80	51.50	51.10	42.00	39.00
	[2.028]	[2.012]	[1.654]	[1.535]
100	61.50	61.10	52.00	49.00
	[2.421]	[2.406]	[2.047]	[1.929]

### X-X' Cross Section

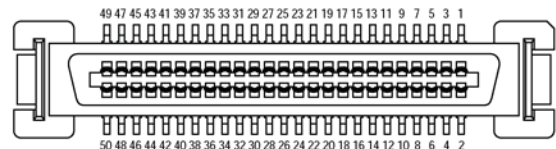
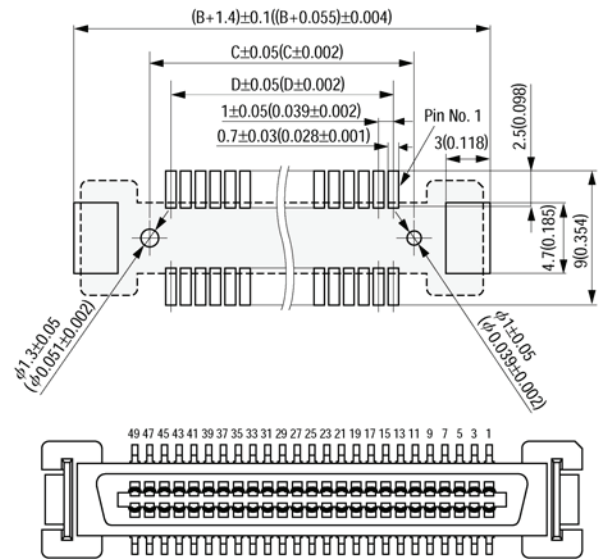


SMT lead thickness: T=0.2(0.008)  
Metal retention pad thickness: T=0.3(0.012)

#### Automated Assembly:

- Packaged in Hard Trays
- Allows chucking type pick and place
- Molded vacuum suction cover is optional

### Printed Circuit Board Layout (Component Side View)



Contact designation

mm  
[inch]

Tolerance Unless Noted		
	.0	.00
mm	±.1	±.10

[ ] Dimensions for Reference Only

## Ordering Information

**PK10 - XXXSX - X - DA** (RIA E1 & C1 apply)

Contact Quantity  
See Table

Vacuum Suction Cover:

Blank = None

M = Molded Suction Cover

Note: M only available for Solder Tail Option S

Solder Tail Options:

S = Vertical

R = Right Angle

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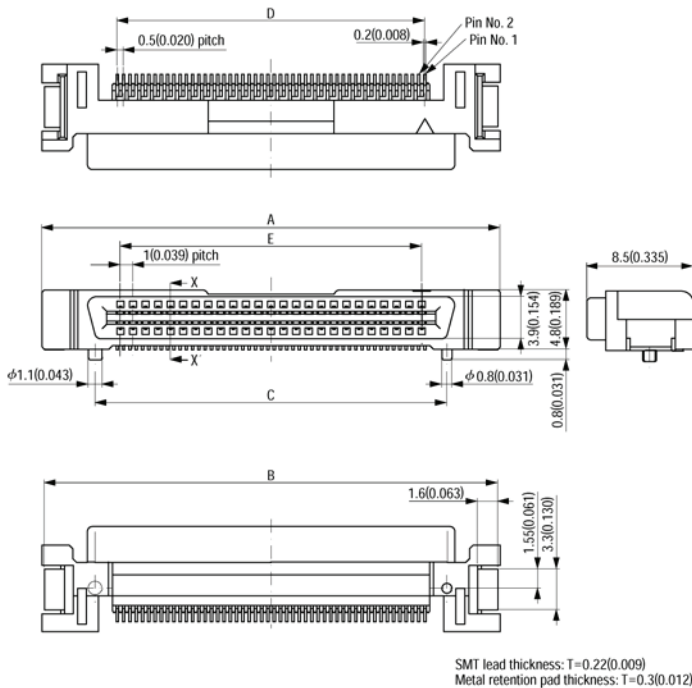
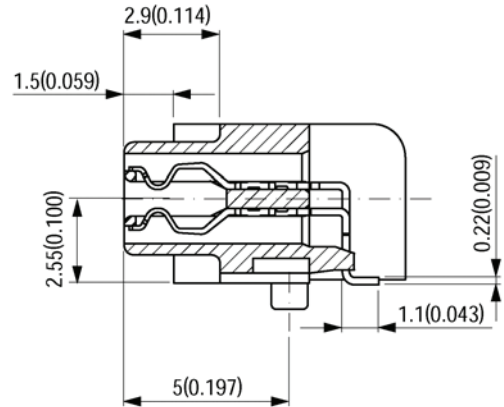
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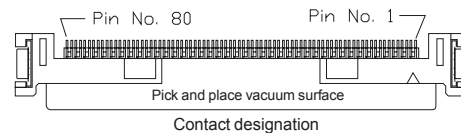
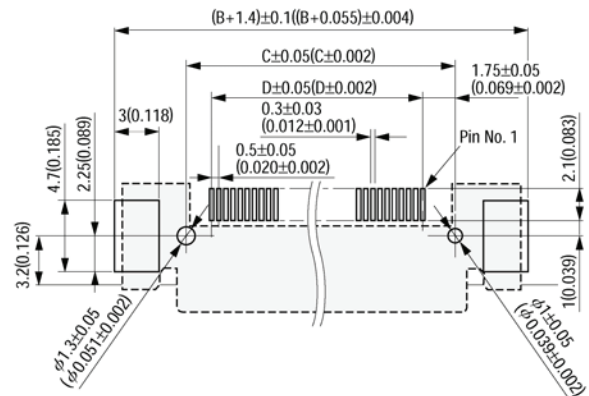
Right Angle Surface Mount mm [inch]

Contact Quantity	A	B	C	D	E
30	26.50	26.10	18.00	14.50	14.00
	[1.043]	[1.028]	[0.709]	[0.571]	[0.551]
50	36.50	36.10	28.00	24.50	24.00
	[1.437]	[1.421]	[1.102]	[0.965]	[0.945]
80	51.50	51.10	43.00	39.50	39.00
	[2.028]	[2.012]	[1.693]	[1.555]	[1.535]
100	61.50	61.10	53.00	49.50	49.00
	[2.421]	[2.406]	[2.087]	[1.949]	[1.929]
120	71.5	71.1	63.0	59.50	59.0
	[2.815]	[2.799]	[2.480]	[2.343]	[2.323]

X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



Automated Assembly:

- Packaged in Hard Trays
- Flat surface allows vacuum pick and place



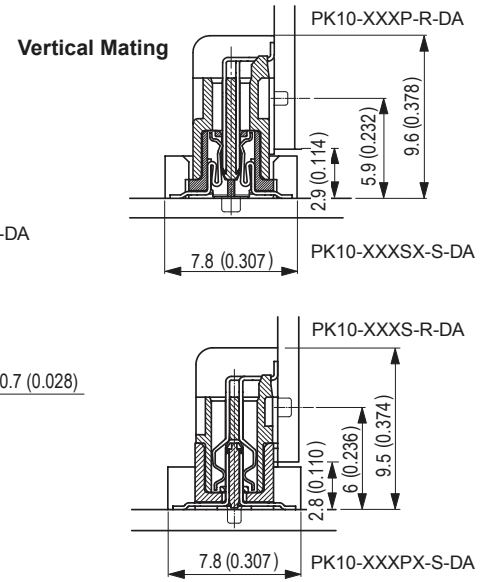
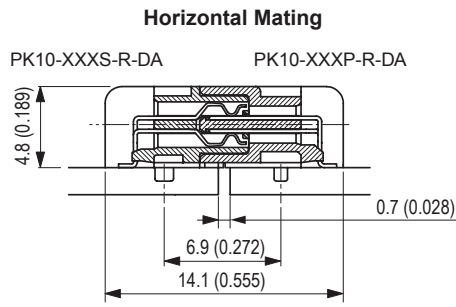
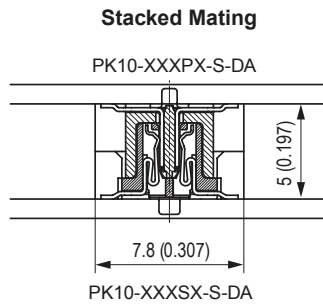
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Unit: mm [inch]

## Mating Variations



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