

# FOR BOARD-TO-BOARD CONNECTION

## 230 SERIES

### ■ FEATURES

- 1.27 mm (0.050 in.) pitch contact arrangement in two rows enables high-density mounting.
- Connectors with 34 to 96 contacts are available for various purposes.
- Connectors with 68 contacts comply with SCSI III interface.
- Connectors with 96 contacts comply with S-bus interface.
- Each of the contacts on the female connector are alternately inset for two-step coupling, significantly reducing insertion force.
- Terminals are spaced in a four-row staggered arrangement (2.54 mm × 1.905 mm) (0.100 in. × 0.075 in.) for easy PC board design.
- Insulation is UL-approved (94V-0).



### ■ SPECIFICATIONS

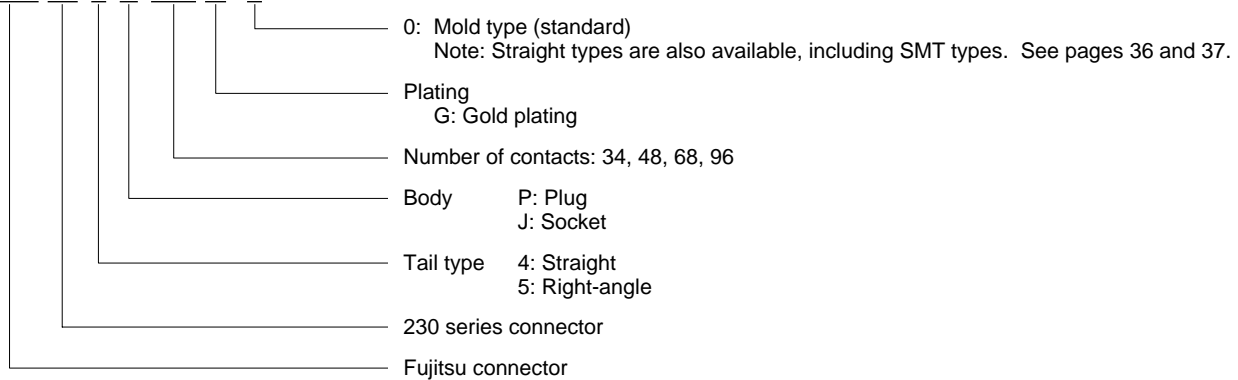
| Item                           | Specifications             |      |      |      |      |
|--------------------------------|----------------------------|------|------|------|------|
| Operating temperature range    | -55°C to +105°C            |      |      |      |      |
| Current rating                 | DC 1A                      |      |      |      |      |
| Voltage rating                 | AC 240 V                   |      |      |      |      |
| Contact resistance             | 30 mΩ max. (DC 6 V, 0.1 A) |      |      |      |      |
| Insulation resistance          | 1000 MΩ min. (DC 500 V)    |      |      |      |      |
| Dielectric withstand voltage   | AC 750 V for 1 minute      |      |      |      |      |
| Insertion force [kg max.]      | Number of contacts         | 34   | 48   | 68   | 96   |
|                                | Force                      | 3.0  | 4.0  | 5.5  | 7.0  |
| Withdrawal force [kg min.]     | Number of contacts         | 34   | 48   | 68   | 96   |
|                                | Force                      | 0.68 | 0.96 | 1.36 | 1.92 |
| Applicable PC board (standard) | 1.6 mm (0.063 in.)         |      |      |      |      |

### ■ MATERIALS

| Item      | Materials           |                   |
|-----------|---------------------|-------------------|
| Insulator | Polyester (UL94V-0) |                   |
| Conductor | Copper alloy        |                   |
| Plating   | Contact             | Gold plating      |
|           | Terminal            | Palladium plating |

## ORDERING CODE

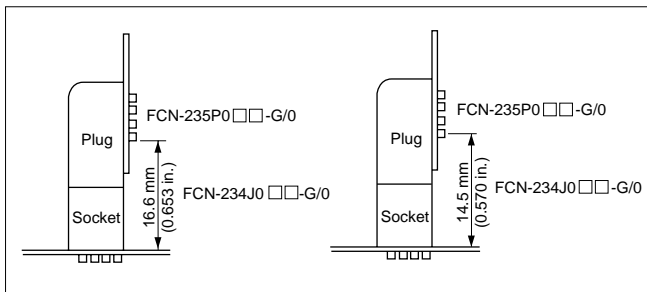
FCN-23 4 P 068-G / 0



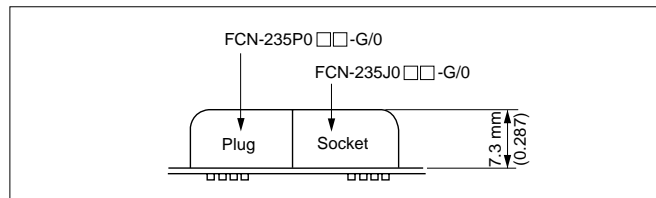
## APPLICATIONS

### Board-to-board connection

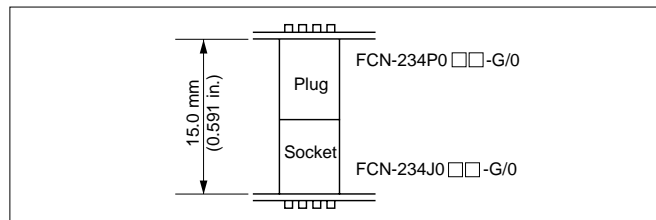
#### Vertical PCB connection



#### Horizontal PCB connection



#### Parallel PCB connection



#### Parallel board connection (for a connector with 96 contacts)

| Board interval (mm (in.)) |        | 15.0            | 18.75   | 39.10  |
|---------------------------|--------|-----------------|---|--|
| Mounting dimension        |        |                 |   |  |
| Part number               | Plug   | FCN-234P0XX-G/0 | FCN-234P096-G/0<br>FCN-234P096-G/Y<br>FCN-234P096-G/ZA  | FCN-234P096-G/0<br>FCN-234P096-G/Y<br>FCN-234P096-G/ZA |
|                           | Socket | FCN-234J0XX-G/0 | FCN-234J096-G/UA<br>FCN-234J096-G/VA<br>FCN-234J096-G/Y | FCN-234J096-G/U1                                       |

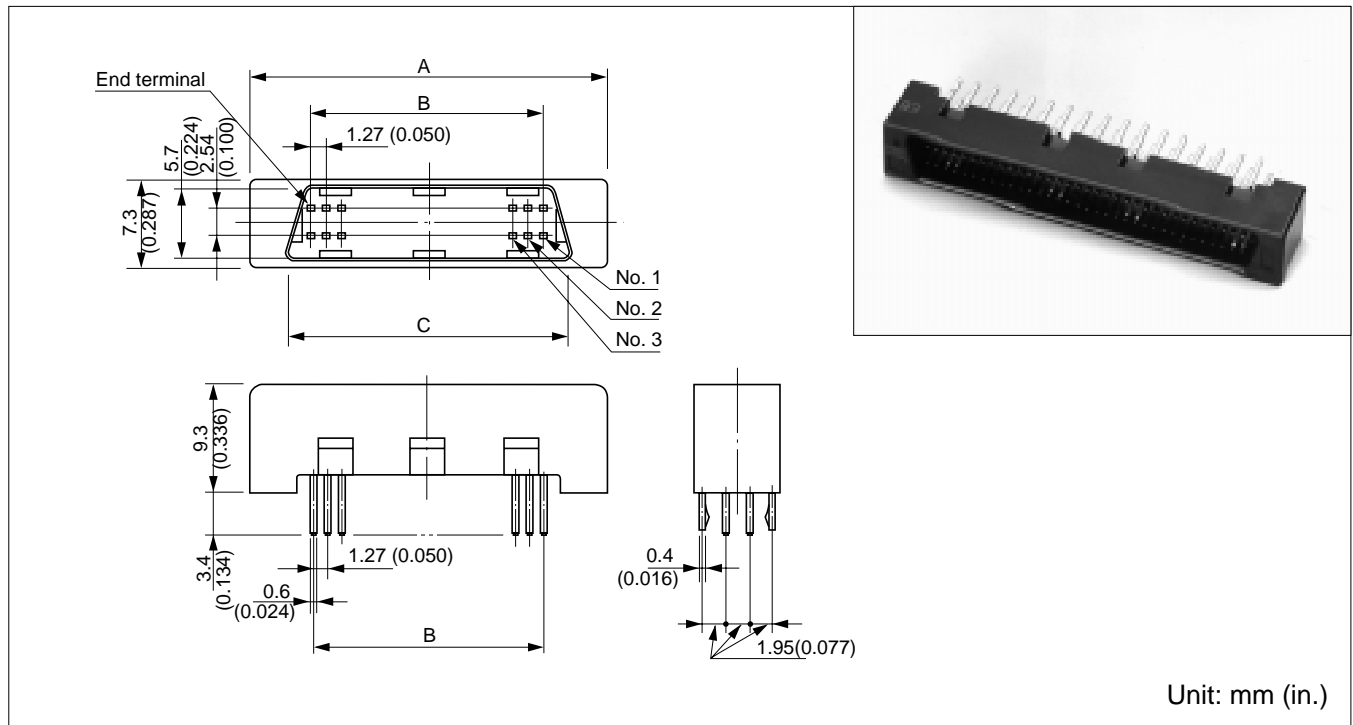
Specifications subject to change

Dimensions are in millimeters (inches)

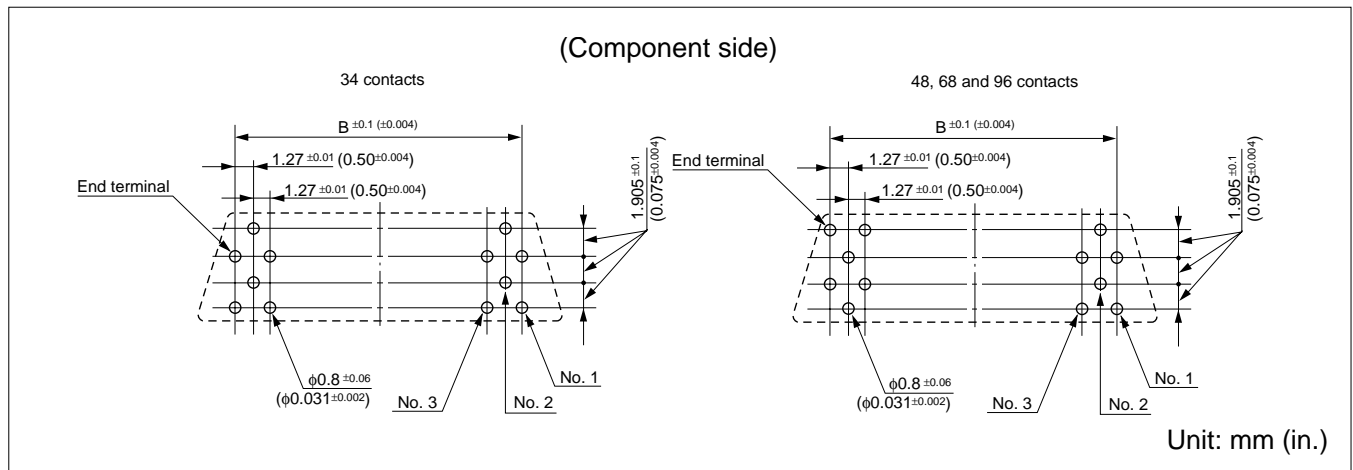
www.fc.ai.fujitsu.com

## STRAIGHT PLUG

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT



### ■ PART NUMBERS AND DIMENSIONS

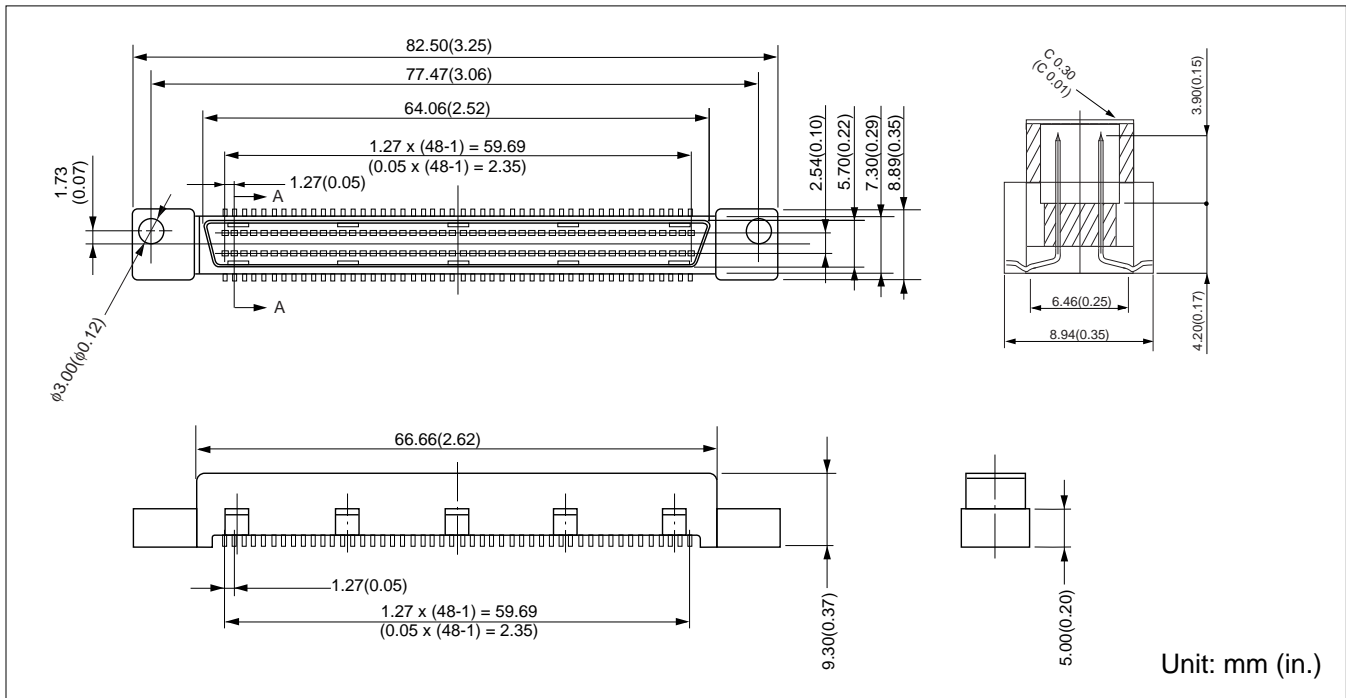
| Number of contacts | Part number     | Dimensions: mm (in.) |               |               |
|--------------------|-----------------|----------------------|---------------|---------------|
|                    |                 | A                    | B             | C             |
| 34                 | FCN-234P034-G/0 | 31.63 (1.245)        | 20.32 (0.800) | 24.69 (0.800) |
| 48                 | FCN-234P048-G/0 | 40.52 (1.595)        | 29.21 (1.150) | 33.58 (1.322) |
| 68                 | FCN-234P068-G/0 | 53.22 (2.095)        | 41.91 (1.650) | 46.28 (1.822) |
| 96                 | FCN-234P096-G/0 | 71.00 (2.795)        | 59.69 (2.350) | 64.06 (2.522) |



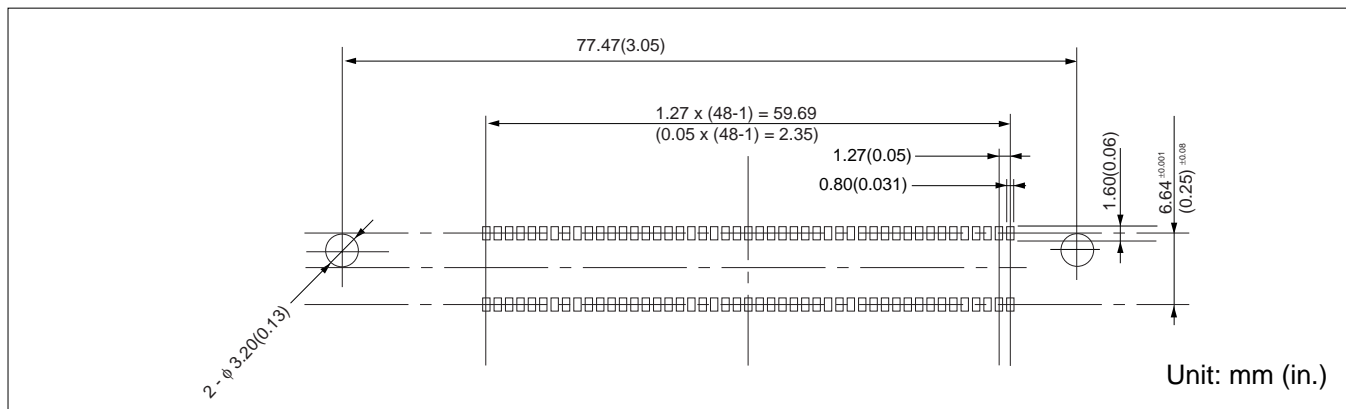


## FCN-234P096-G/Z SMT PLUG

### ■ DIMENSIONS



### ■ PCB PATTERN PATTERN LAYOUT

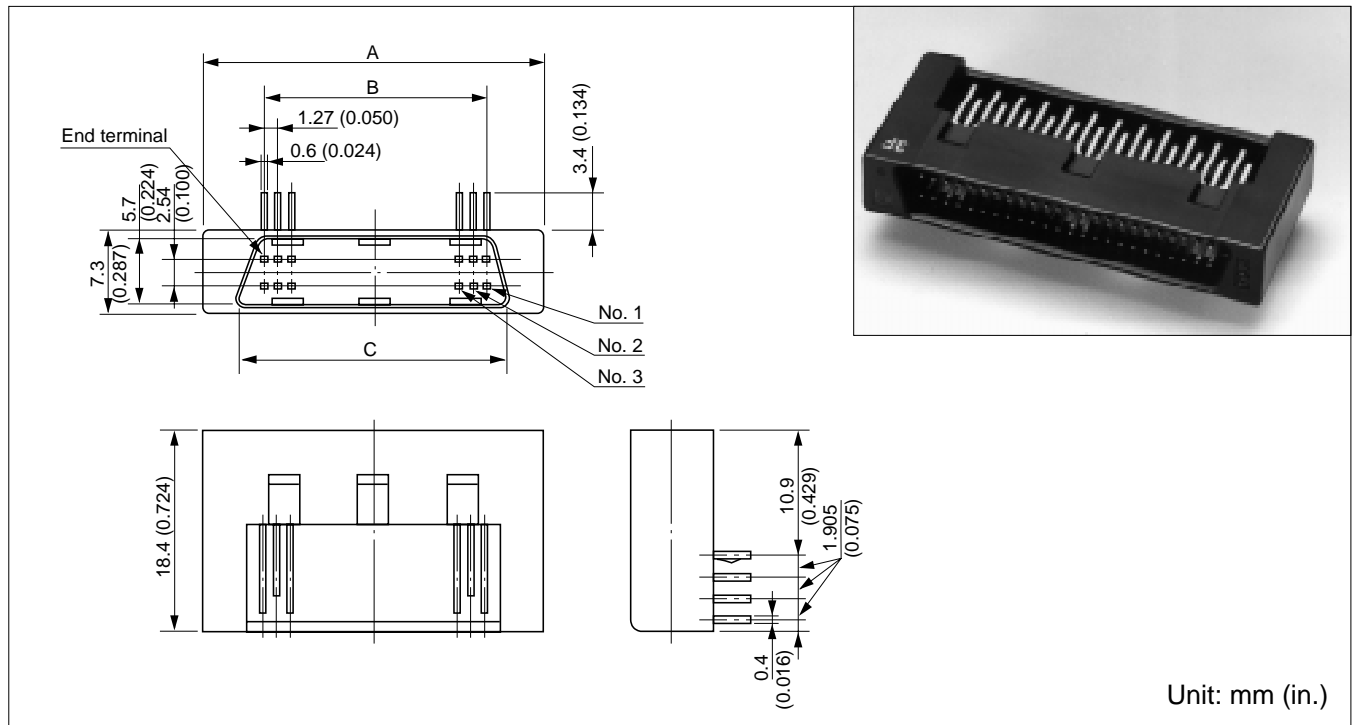


### ■ PART NUMBER

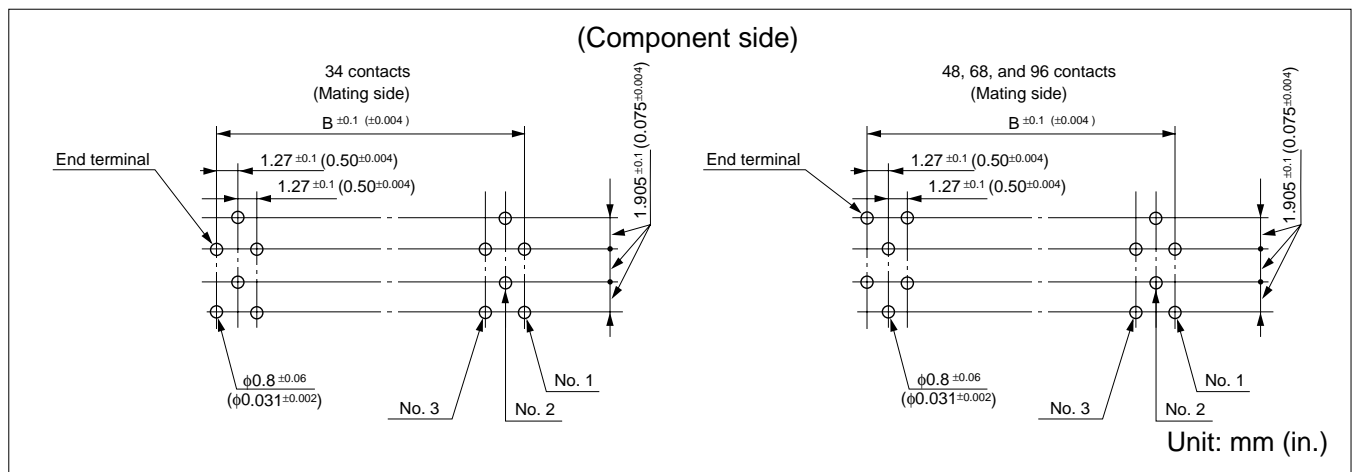
| No. of Contacts | Part Number     |
|-----------------|-----------------|
| 96              | FCN-234P096-G/Z |

## RIGHT-ANGLE PLUG

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT

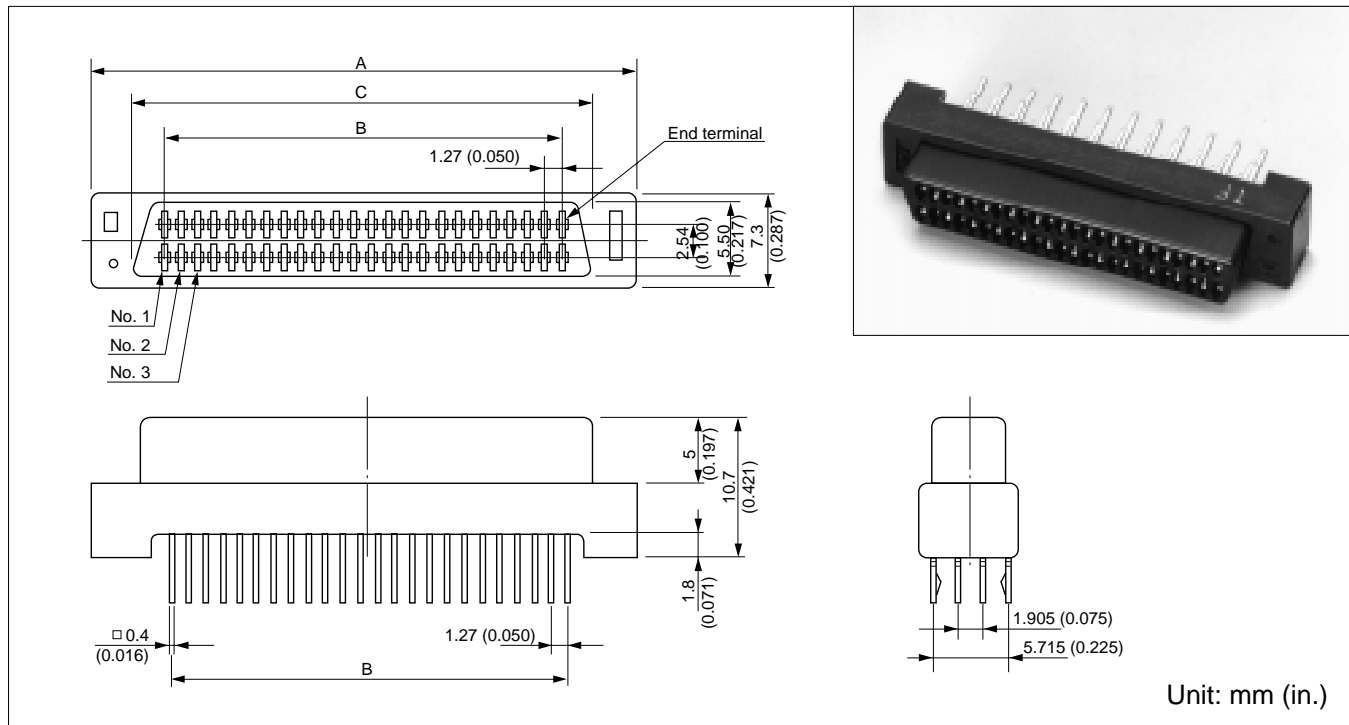


### ■ PART NUMBERS AND DIMENSIONS

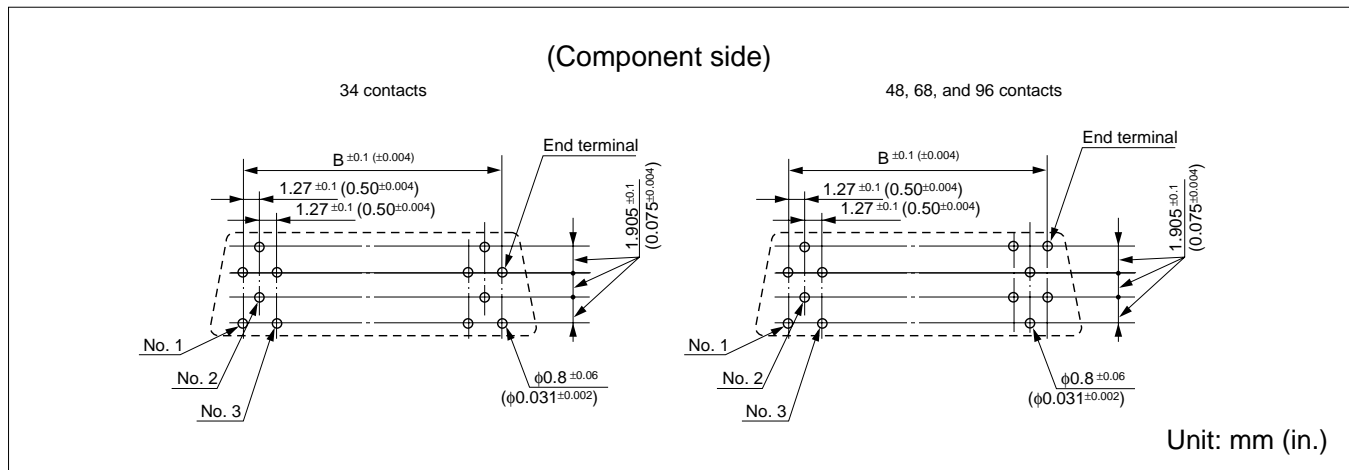
| Number of contacts | Part number     | Dimensions: mm (in.) |               |               |
|--------------------|-----------------|----------------------|---------------|---------------|
|                    |                 | A                    | B             | C             |
| 34                 | FCN-235P034-G/0 | 31.63 (1.245)        | 20.32 (0.800) | 24.69 (0.800) |
| 48                 | FCN-235P048-G/0 | 40.52 (1.595)        | 29.21 (1.150) | 33.58 (1.322) |
| 68                 | FCN-235P068-G/0 | 53.22 (2.095)        | 41.91 (1.650) | 46.28 (1.822) |
| 96                 | FCN-235P096-G/0 | 71.00 (2.795)        | 59.69 (2.350) | 64.06 (2.522) |

## STRAIGHT SOCKET

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT



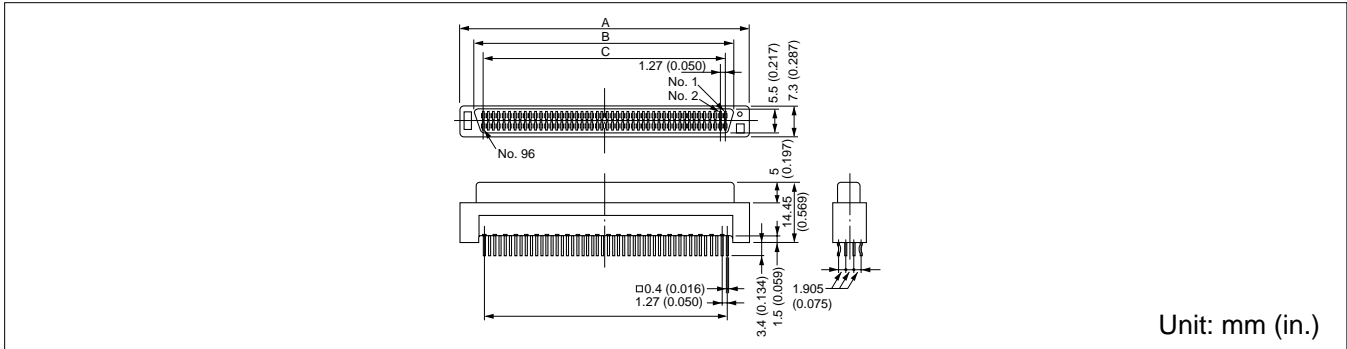
### ■ PART NUMBERS AND DIMENSIONS

| Number of contacts | Part number     | Dimensions: mm (in.) |               |               |
|--------------------|-----------------|----------------------|---------------|---------------|
|                    |                 | A                    | B             | C             |
| 34                 | FCN-234J034-G/0 | 31.63 (1.245)        | 20.32 (0.800) | 24.69 (0.800) |
| 48                 | FCN-234J048-G/0 | 40.52 (1.595)        | 29.21 (1.150) | 33.38 (1.314) |
| 68                 | FCN-234J068-G/0 | 53.22 (2.095)        | 41.91 (1.650) | 46.08 (1.814) |
| 96                 | FCN-234J096-G/0 | 71.00 (2.795)        | 59.69 (2.350) | 63.86 (2.514) |

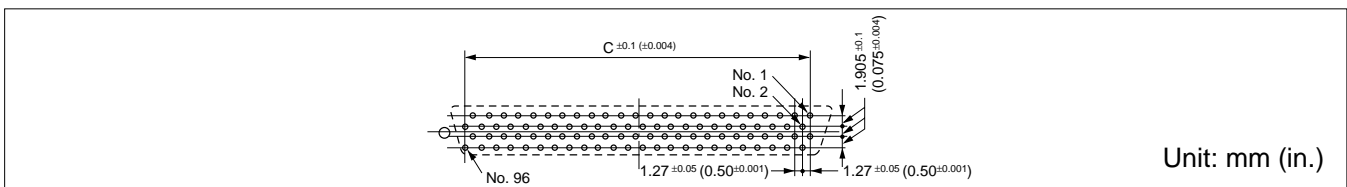


## STRAIGHT SOCKET (RAISED MOUNTING TYPE) - STACK HEIGHT 18.75mm

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT

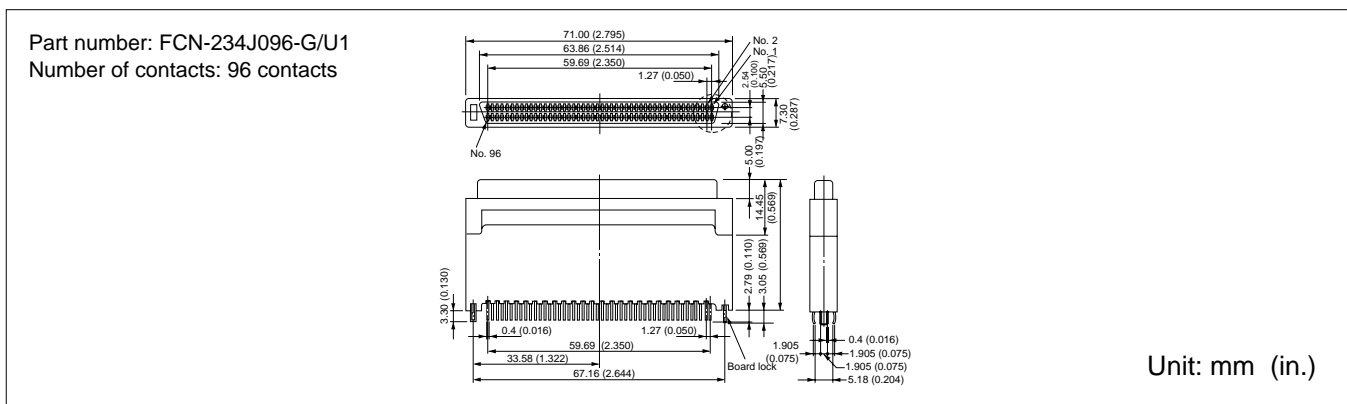


### ■ PART NUMBERS AND DIMENSIONS

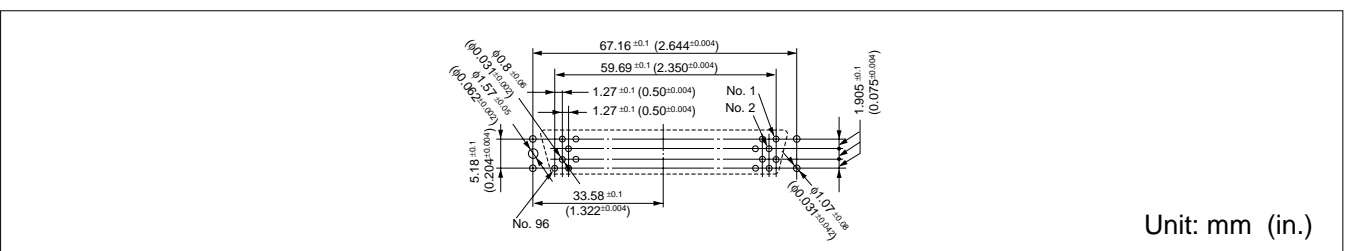
| Number of contacts | Part number     | Dimensions: mm (in.) |               |               |
|--------------------|-----------------|----------------------|---------------|---------------|
|                    |                 | A                    | B             | C             |
| 48                 | FCN-234J048-G/Y | 40.52 (1.595)        | 33.38 (1.314) | 29.21 (1.150) |
| 68                 | FCN-234J068-G/Y | 53.22 (2.095)        | 46.08 (1.814) | 41.91 (1.650) |
| 96                 | FCN-234J096-G/Y | 71.00 (2.795)        | 63.86 (2.514) | 59.69 (2.350) |

## STRAIGHT SOCKET (EXTENDED HEIGHT S BUS - STACK HEIGHT 39.1mm)

### ■ DIMENSIONS

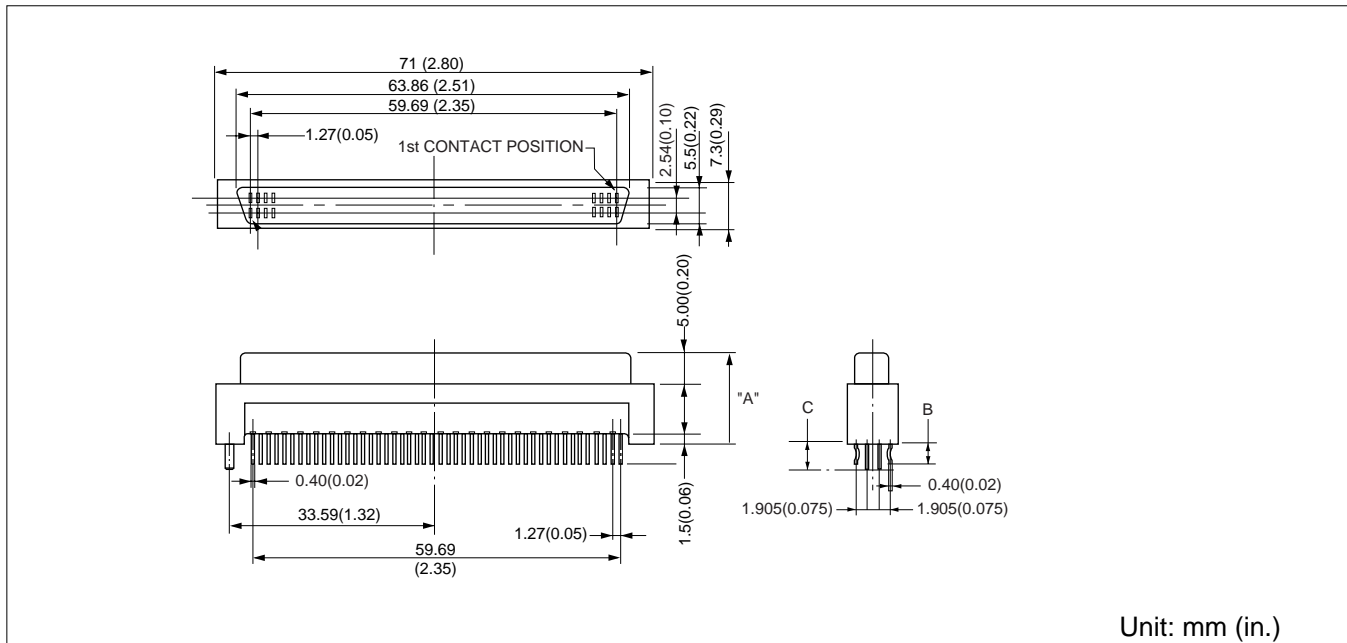


### ■ MOUNTING HOLE LAYOUT

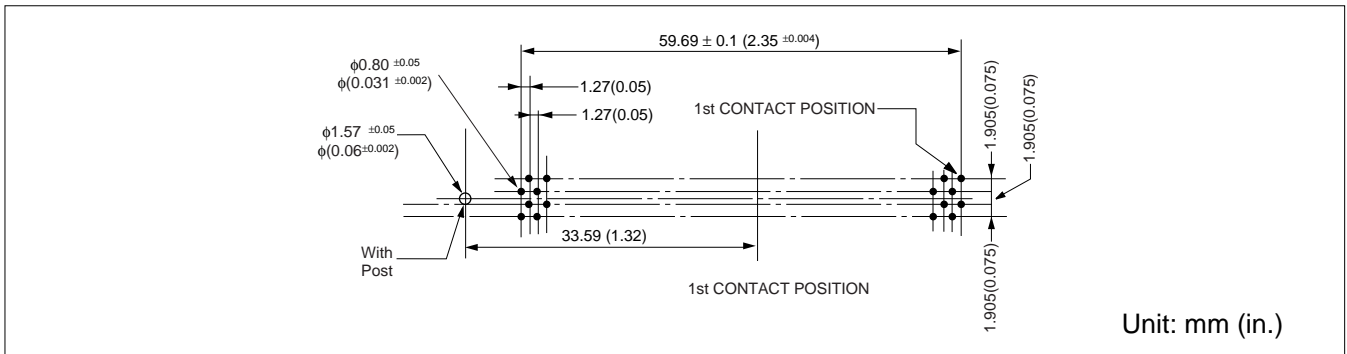


## FCN-234J096-G/\* STRAIGHT-TYPE SOCKET — S-BUS

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT

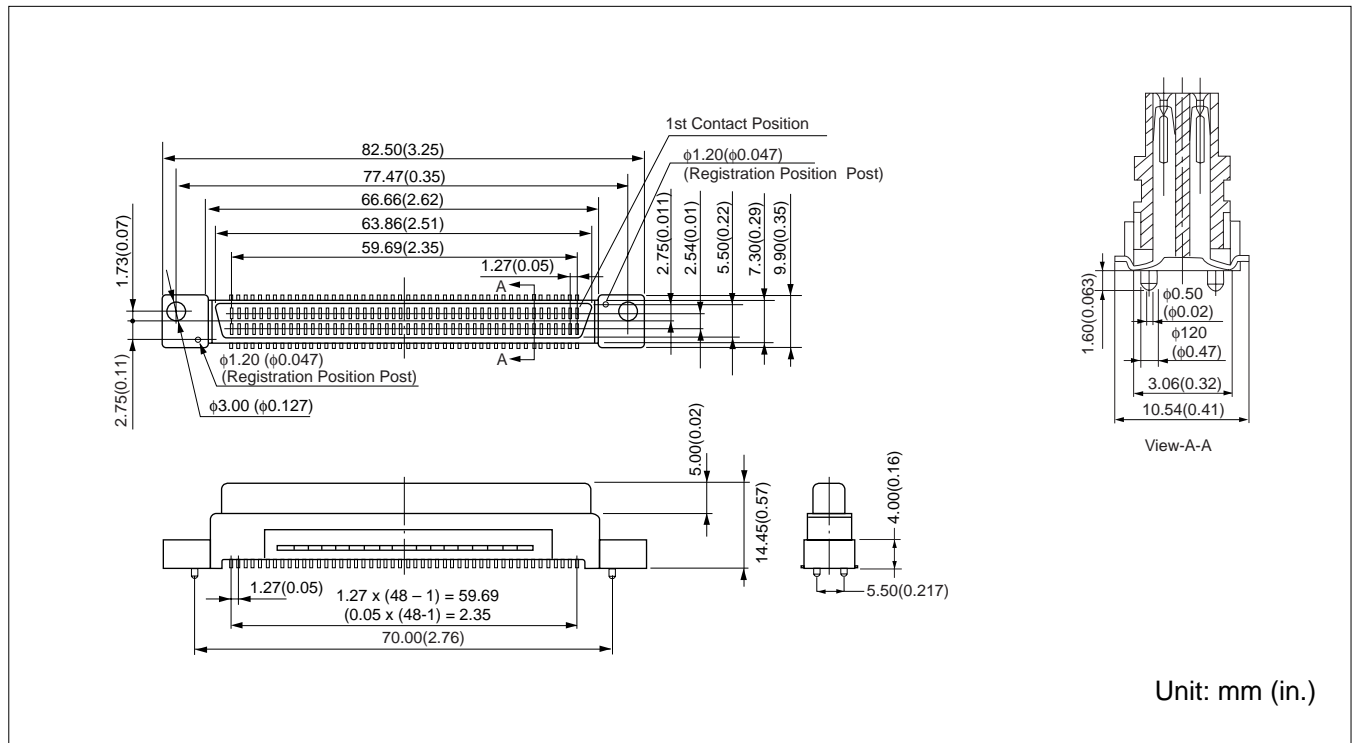


### ■ PART NUMBERS AND DIMENSIONS

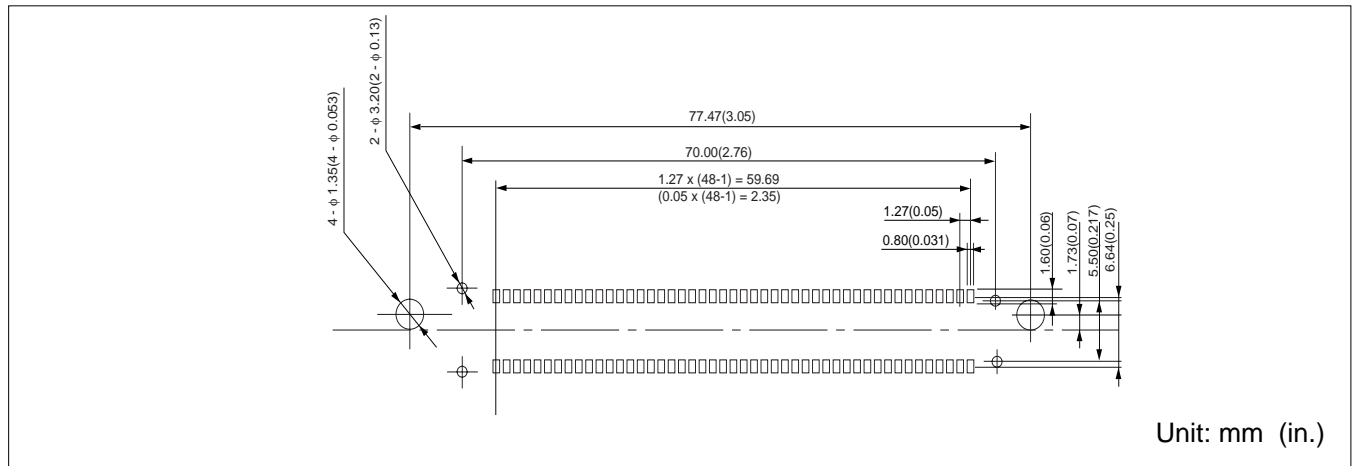
| No. of Contacts | Part Number       | A           | B Lead Length | C Polarization Post | Description |
|-----------------|-------------------|-------------|---------------|---------------------|-------------|
| 96              | FCN-234J096-G/O   | 10.7(0.421) | 3.0(0.13)     | -                   | Std.        |
| 96              | FCN-234J096-G/S   | 10.7(0.421) | 3.0(0.13)     | 4.0(0.16)           | Std.        |
| 96              | FCN-234J096-G/Y   | 14.45(0.57) | 3.0(0.13)     | -                   | S-Bus       |
| 96              | FCN-234J096-G/TFA | 14.45(0.57) | 2.8(0.11)     | 3.4(0.13)           | S-Bus       |
| 96              | FCN-234J096-G/UA  | 14.45(0.57) | 3.0(0.13)     | 3.4(0.13)           | S-Bus       |

## FCN-234J096-G/VA SMT SOCKET

### ■ DIMENSIONS



### ■ PC BOARD PATTERN

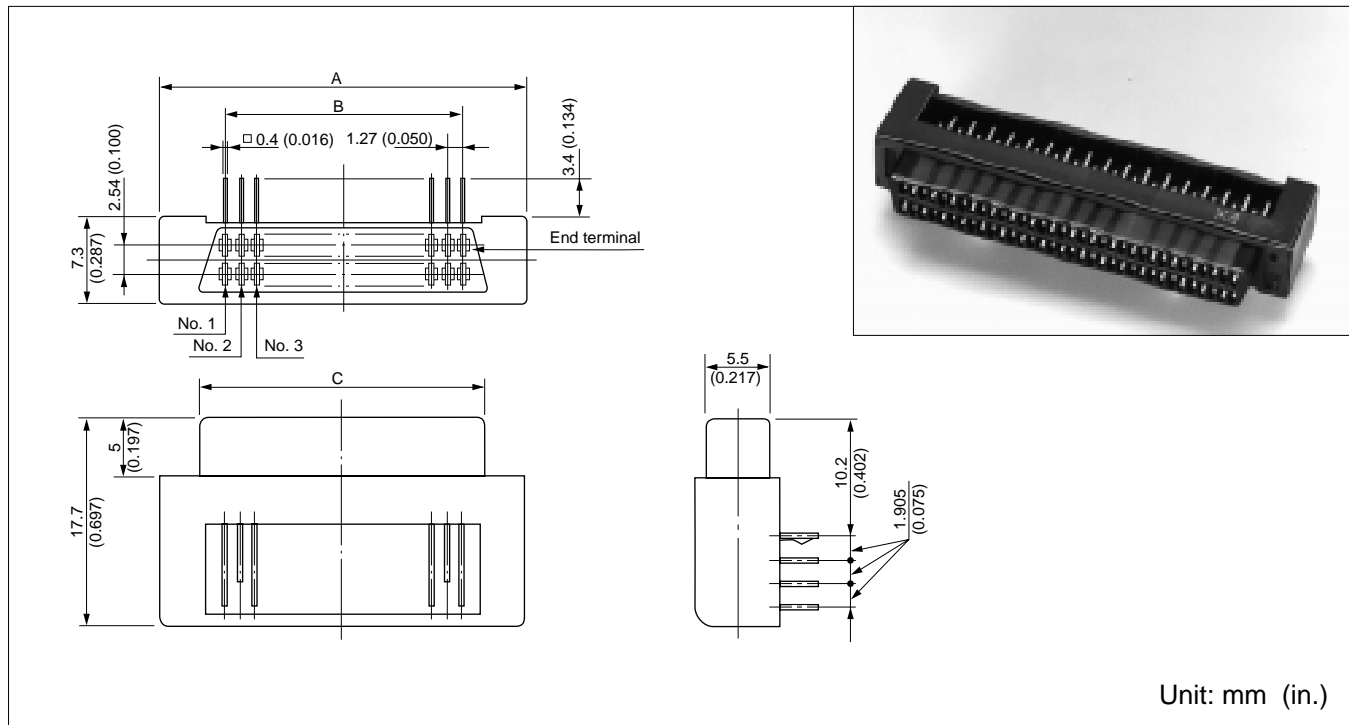


### ■ PART NUMBER

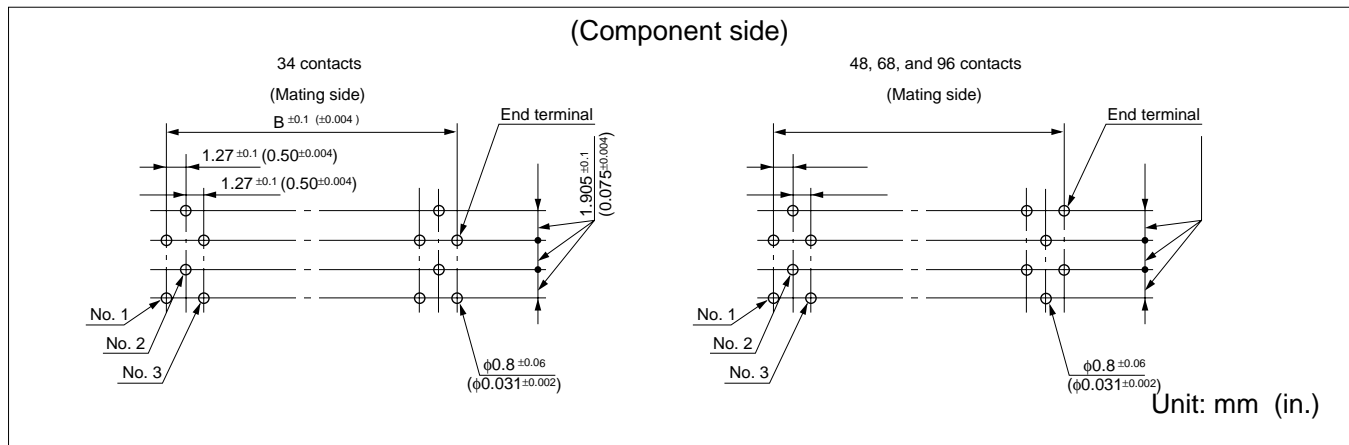
| No. of Contacts | Part Number      |
|-----------------|------------------|
| 96              | FCN-234J096-G/VA |

## RIGHT-ANGLE SOCKET

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT



### ■ PART NUMBERS AND DIMENSIONS

| Number of contacts | Part number     | Dimensions: mm (in.) |               |               |
|--------------------|-----------------|----------------------|---------------|---------------|
|                    |                 | A                    | B             | C             |
| 34                 | FCN-235J034-G/0 | 31.63 (1.245)        | 20.32 (0.800) | 24.69 (0.800) |
| 48                 | FCN-235J048-G/0 | 40.52 (1.595)        | 29.21 (1.150) | 33.38 (1.314) |
| 68                 | FCN-235J068-G/0 | 53.22 (2.095)        | 41.91 (1.650) | 46.08 (1.814) |
| 96                 | FCN-235J096-G/0 | 71.00 (2.795)        | 59.69 (2.350) | 63.86 (2.514) |

FOR CABLE ASSEMBLY TOOL INFORMATION SEE PAGES 2-183 TO 2-190

## Fujitsu Components International Headquarter Offices

### Japan

Fujitsu Component Limited  
Gotanda-Chuo Building  
3-5, Higashigotanda 2-chome, Shinagawa-ku  
Tokyo 141-0022, Japan  
Tel: (81-3) 5449-7010  
Fax: (81-3) 5449-2626  
Email: [promothq@fcl.fujitsu.com](mailto:promothq@fcl.fujitsu.com)  
Web: [www.fcl.fujitsu.com](http://www.fcl.fujitsu.com)

### North and South America

Fujitsu Components America, Inc.  
250 E. Caribbean Drive  
Sunnyvale, CA 94089 U.S.A.  
Tel: (1-408) 745-4900  
Fax: (1-408) 745-4970  
Email: [components@us.fujitsu.com](mailto:components@us.fujitsu.com)  
Web: <http://us.fujitsu.com/components>

### Europe

Fujitsu Components Europe B.V.  
Diamantlaan 25  
2132 WV Hoofddorp  
Netherlands  
Tel: (31-23) 5560910  
Fax: (31-23) 5560950  
Email: [info@fceu.fujitsu.com](mailto:info@fceu.fujitsu.com)  
Web: [emea.fujitsu.com/components](http://emea.fujitsu.com/components)

### Asia Pacific

Fujitsu Components Asia Ltd.  
102E Pasir Panjang Road  
#01-01 Citilink Warehouse Complex  
Singapore 118529  
Tel: (65) 6375-8560  
Fax: (65) 6273-3021  
Email: [fcal@fcal.fujitsu.com](mailto:fcal@fcal.fujitsu.com)  
[www.fcal.fujitsu.com](http://www.fcal.fujitsu.com)

© 2010 Fujitsu Components America, Inc. All rights reserved. All trademarks or registered trademarks are the property of their respective owners. Fujitsu Components America, Inc. or its affiliates do not warrant that the content of the datasheet is error free. In a continuing effort to improve our products, Fujitsu Components America, Inc. or its affiliates reserve the right to change specifications/datasheets without prior notice. Rev. June 11, 2010.