FOR BOARD-TO-BOARD CONNECTION

220 SERIES (CARD EDGE TYPE)

**FEATURES**

- 1.27 mm (0.050 in.) pitch contact arrangement in two rows enables high-density mounting.
- Standard types with 30 to 120 contacts, S types with 112, 132, and 182 contacts, SMT types with 26, 40, 50, 60, and 100 contacts are available for various purposes.
- Double side separated connection for 1.6 mm (0.063 in.) PC board
- Tails 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) and is washable.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature range</td>
<td>−55°C to +105°C</td>
</tr>
<tr>
<td>Current rating</td>
<td>DC 2 A</td>
</tr>
<tr>
<td>Voltage rating</td>
<td>AC 250 V</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>35 mΩ max. (DC 6 V, 0.1 A)</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>1000 MΩ min. (DC 500 V)</td>
</tr>
<tr>
<td>Dielectric withstand voltage</td>
<td>AC 500 V for 1 minute</td>
</tr>
<tr>
<td>Insertion force</td>
<td>Standard type SMT type 2 kg max. (10 pins)</td>
</tr>
<tr>
<td></td>
<td>S type 1 kg max. (10 pins)</td>
</tr>
<tr>
<td>Withdrawal force</td>
<td>Standard type SMT type 250 g min. (10 pins)</td>
</tr>
<tr>
<td></td>
<td>S type 50 g min. (10 pins)</td>
</tr>
<tr>
<td>Applicable PC board (standard)</td>
<td>Mounting through hole: 0.8 to 1.6 mm (0.031 to 0.063 in.)</td>
</tr>
<tr>
<td></td>
<td>Mating card edge: 1.6 mm (0.063 in.)</td>
</tr>
</tbody>
</table>

**MATERIALS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulator</td>
<td>Polyester (UL94V-0)</td>
</tr>
<tr>
<td>Conductor</td>
<td>Copper alloy</td>
</tr>
<tr>
<td>Plating</td>
<td>Contact Gold plating</td>
</tr>
<tr>
<td></td>
<td>Terminal Palladium plating</td>
</tr>
</tbody>
</table>
220 Series (Card Edge Type)

■ ORDERING CODE

FCN-22 4 J 050-G / 0

- With mounting flanges
- Plating
  - G: Gold plating
- Number of contacts
  - Standard: 30, 34, 40, 50, 60, 62, 80, 100, and 120
- Body
  - J: Socket
- Tail type
  - 4: Straight
  - 5: Right-angle
  - 8: SMT

220 series connector
(Card edge connector)

Fujitsu connector

■ APPLICATIONS
RIGHT-ANGLE TYPE

■ DIMENSIONS

![Diagram of card edge connector dimensions]

- A: 28.05 (1.104) mm
- B: 30.59 (1.204) mm
- C: 32.14 (1.268) mm
- D: 33.69 (1.329) mm
- E: 35.24 (1.389) mm

MOUNTING HOLE LAYOUT

![Diagram of mounting hole layout]

- No. 1: 2.5 (0.099) mm
- No. 2: 2.8 (0.110) mm
- No. 3: 3.1 (0.122) mm

MATING PC BOARD

![Diagram of mating PC board pattern]

- A: 1.27 (0.050) mm
- B: 1.27 (0.050) mm
- C: 1.27 (0.050) mm

PART NUMBERS AND DIMENSIONS

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>Part number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>FCN-225J030-G/0</td>
<td>28.05</td>
<td>30.32</td>
<td>17.78</td>
<td>34.55</td>
<td>22.25</td>
<td>19.65</td>
<td>20.12</td>
</tr>
<tr>
<td>34</td>
<td>FCN-225J034-G/0</td>
<td>30.59</td>
<td>32.86</td>
<td>20.32</td>
<td>37.09</td>
<td>24.79</td>
<td>22.19</td>
<td>22.66</td>
</tr>
<tr>
<td>40</td>
<td>FCN-225J040-G/0</td>
<td>34.40</td>
<td>36.77</td>
<td>23.12</td>
<td>40.64</td>
<td>28.06</td>
<td>26.00</td>
<td>26.67</td>
</tr>
<tr>
<td>50</td>
<td>FCN-225J050-G/0</td>
<td>40.75</td>
<td>43.02</td>
<td>26.87</td>
<td>44.75</td>
<td>34.95</td>
<td>32.35</td>
<td>32.82</td>
</tr>
<tr>
<td>60</td>
<td>FCN-225J060-G/0</td>
<td>47.10</td>
<td>49.37</td>
<td>30.63</td>
<td>53.60</td>
<td>41.90</td>
<td>38.70</td>
<td>39.17</td>
</tr>
<tr>
<td>62</td>
<td>FCN-225J062-G/0</td>
<td>48.37</td>
<td>50.64</td>
<td>33.39</td>
<td>56.30</td>
<td>44.25</td>
<td>41.00</td>
<td>41.47</td>
</tr>
<tr>
<td>80</td>
<td>FCN-225J080-G/0</td>
<td>59.80</td>
<td>62.07</td>
<td>46.12</td>
<td>65.30</td>
<td>54.00</td>
<td>51.40</td>
<td>51.87</td>
</tr>
<tr>
<td>100</td>
<td>FCN-225J100-G/0</td>
<td>72.50</td>
<td>74.77</td>
<td>52.42</td>
<td>71.00</td>
<td>66.70</td>
<td>64.10</td>
<td>64.57</td>
</tr>
<tr>
<td>120</td>
<td>FCN-225J120-G/0</td>
<td>85.20</td>
<td>87.47</td>
<td>74.93</td>
<td>84.50</td>
<td>79.90</td>
<td>77.30</td>
<td>77.77</td>
</tr>
</tbody>
</table>

The above connectors are also available without mounting EARS. Specify the part number with "-G/A" in place of the "-G/0."
# 220 Series (Card Edge Type)

<table>
<thead>
<tr>
<th>Fujitsu Components International Headquarter Offices</th>
</tr>
</thead>
</table>
| **Japan**  
Fujitsu Component Limited  
Gotanda-Chuo Building  
3-5, Higashigotanda 2-chome, Shinagawa-ku  
Tokyo 141, Japan  
Tel: (81-3) 5449-7010  
Fax: (81-3) 5449-2626  
Email: promothq@ft.ed.fujitsu.com  
Web: www.fcl.fujitsu.com |
| **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  
Web: www.fceu.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: marcom@fcai.fujitsu.com  
Web: www.fcai.fujitsu.com |
| **Asia Pacific**  
Fujitsu Components Asia Ltd.  
102E Pasir Panjang Road  
#04-01 Citilink Warehouse Complex  
Singapore 118529  
Tel: (65) 6375-8560  
Fax: (65) 6273-3021  
Email: fcai@fcai.fujitsu.com  
Web: www.fcai.fujitsu.com |

© 2003 Fujitsu Components America, Inc. All company and product names are trademarks or registered trademarks of their respective owners. Rev. 01/16/2003