

## SMD female connectors - FP 1,27/ 80-FV 6,25 - 1714901

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SMD female connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 80, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering


The figure shows a 12-pos. version with 12 contacts

### Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Compact, high-position board-to-board or wire-to-board connectors for space-saving device designs
- Stacked, coplanar or orthogonal PCB connections enable maximum flexibility in the device
- Male and female connectors of different height can be combined – for individual PCB spacing of 8 mm ... 13.8 mm



### Key Commercial Data

|                        |   |
|------------------------|---|
| Packing unit           | 280 pc  |
| Minimum order quantity | 280 pc  |
| GTIN                   | <br>4 0 5 5 6 2 6 4 0 2 7 9 6 |
| GTIN                   | 4055626402796   |

### Technical data

#### Item properties

|                           |                       |
|---------------------------|-----------------------|
| Brief article description | SMD female connectors |
| Plug-in system            | FINEPITCH 1,27 mm     |
| Type of contact           | Female connector      |
| Range of articles         | FP 1,27/...-FV 6,25   |
| Pitch                     | 1.27 mm               |
| Number of positions       | 80                    |
| Mounting type             | SMD soldering         |
| Pin layout                | Linear pad geometry   |
| Number of levels          | 2                     |
| Number of potentials      | 80                    |

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## Technical data

### Electrical data

|                          |                                  |
|--------------------------|----------------------------------|
| Nominal current at 20 °C | 1.4 A (50-pos.)                  |
| Test voltage             | 500 V AC                         |
| Contact resistance       | ≤25 mΩ, (IEC 60512-2-1:2002-02)  |
| Insulation resistance    | ≥ 10 GΩ, (IEC 60512-3-1:2002-02) |

### Material data - contact

|   |   |
|---|---|
| Note                                      | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material                          | Cu alloy  |
| Surface characteristics                   | Selective coating   |
| Metal surface contact area (top layer)    | Gold (Au)   |
| Metal surface contact area (middle layer) | Nickel (Ni), Palladium nickel (PdNi)  |

### Material data - housing

|  |      |
|--|------|
| Insulating material                    | LCP  |
| Insulating material group              | IIIa |
| CTI according to IEC 60112             | 175  |
| Flammability rating according to UL 94 | V0   |

### Dimensions for the product

|                             |          |
|-----------------------------|----------|
| Length [ l ]                | 7.2 mm   |
| Width [ w ]                 | 55.89 mm |
| Height [ h ]                | 6.95 mm  |
| Pitch                       | 1.27 mm  |
| Height (without solder pin) | 6.25 mm  |
| Pin spacing                 | 1.27 mm  |
| Coplanarity                 | ≤ 0.1 mm |

### Dimensions for PCB design

|             |         |
|-------------|---------|
| Pin spacing | 1.27 mm |
|-------------|---------|

### Dimensions for the application

|                   |   |
|-------------------|---|
| Contact cover     | 0.9 mm  |
| Overlap length    | 1.5 mm  |
| Medium offset     | ± 0.7 mm in longitudinal and transverse direction                                     |
| Angular tolerance | ± 4 ° in longitudinal direction   |
|                   | ± 2 ° in transverse direction   |
| Stack height      | 8 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 1,27/...-MV 1,75)   |
|                   | 9.5 mm Tolerance: +1,5 mm (in combination with Range of articles:FP 1,27/...-MV 3,25) |

### Packaging information

|                    |                 |
|--------------------|-----------------|
| Type of packaging  | 72 mm wide tape |
| Pieces per package | 280             |

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## Technical data

### Packaging information

|                             |  |
|-----------------------------|--|
| Denomination packing units  | Pcs.                                     |
| [W] tape width              | 72 mm                                    |
| [A] coil diameter           | 330 mm                                   |
| [W2] coil overall dimension | 78.4 mm                                  |
| Outer packaging type        | Transparent-Bag                          |
| ESD level                   | (D) electrostatically conductive         |
| Specification               | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07 |

### General product information

|              |  |
|--------------|--|
| Type of note | Notes on operation   |
| Note         | The permissible voltage during operation depends on the application, taking into consideration the air clearances and creepage distances within the scope of insulation requirements in accordance with IEC 60664-1. |

### Processing notes

|   |  |
|---|--|
| Process                                   | Reflow soldering                       |
| Specification                             | Following IPC/JEDEC J-STD-020E:2014-12 |
| Moisture Sensitive Level                  | MSL 1                                  |
| Classification temperature T <sub>c</sub> | 260 °C                                 |

### Ambient conditions

|   |                   |
|---|-------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C  |
| Ambient temperature (assembly)          | -5 °C ... 100 °C  |
| Ambient temperature (operation)         | -55 °C ... 125 °C |

### Mechanical tests

|  |               |
|--|---------------|
| Insertion and withdrawal force per contact | approx. 0.5 N |
|--|---------------|

### Air clearances and creepage distances

|                                       |             |
|---------------------------------------|-------------|
| Air clearances and creepage distances | min. 0.4 mm |
|---------------------------------------|-------------|

### Current carrying capacity / derating curves

|                  |  |
|------------------|--|
| Caption          | Type: FP 1,27/...-FV 6,25 with FP 1,27/...-MV 1,75 |
| Specification    | IEC 60512-5-2:2002-02                              |
| Reduction factor | 0.8  |
| Note             | max. 1.4 A at 20 °C (50-pos.)                      |

### Service life

|              |  |
|--------------|--|
| Service life | 500 Insertion/withdrawal cycles, Performance level 1 |
|--------------|--|

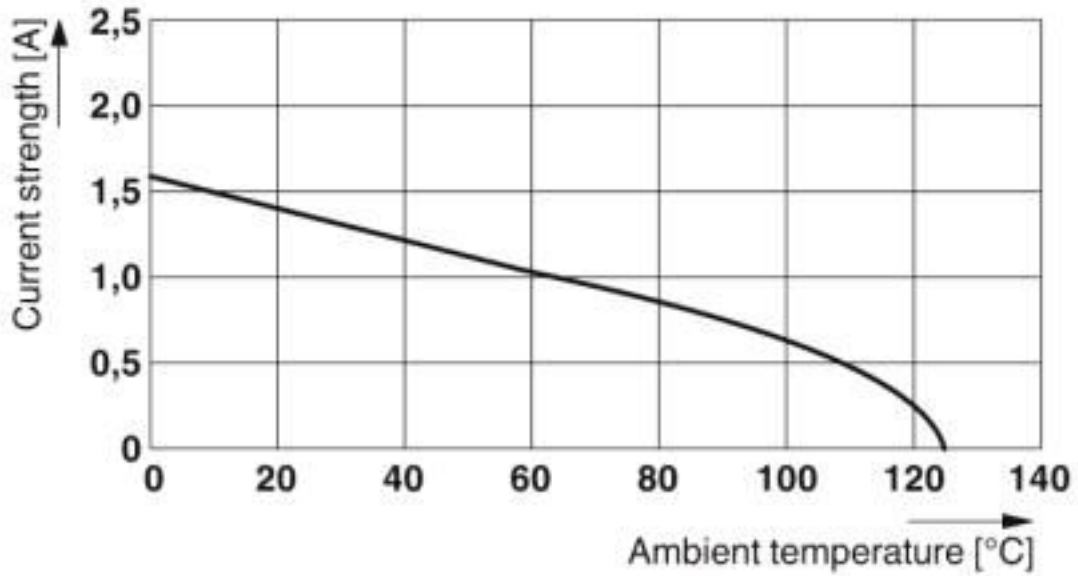
### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

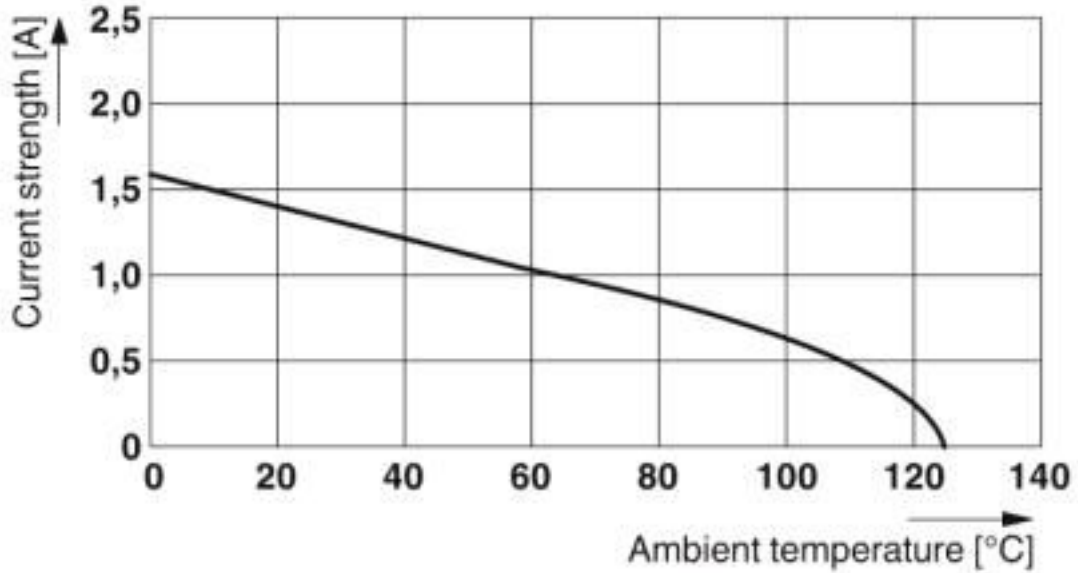
## SMD female connectors - FP 1,27/ 80-FV 6,25 - 1714901

Diagram



Type: FP 1,27/...-FV 6,25 with FP 1,27/...-MV 1,75

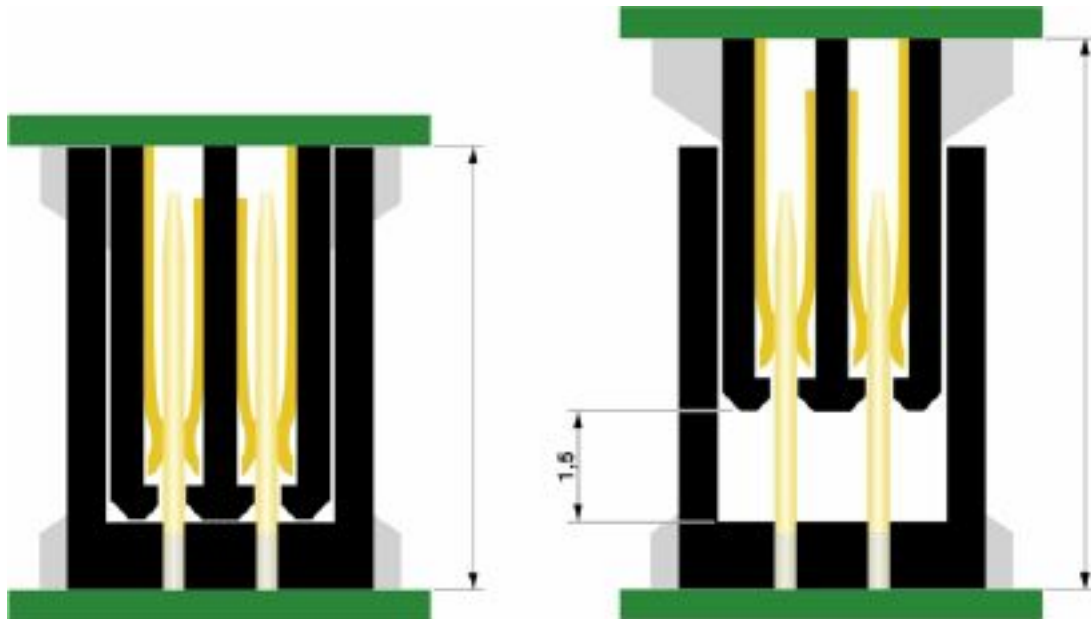
Diagram



Type: FP 1,27/...-FV 6,25 with FP 1,27/...-MV 3,25

# SMD female connectors - FP 1,27/ 80-FV 6,25 - 1714901

Schematic diagram



## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440402 |
| eCl@ss 4.0    | 27260700 |
| eCl@ss 4.1    | 27260700 |
| eCl@ss 5.0    | 27260700 |
| eCl@ss 5.1    | 27260700 |
| eCl@ss 6.0    | 27260700 |
| eCl@ss 7.0    | 27440402 |
| eCl@ss 8.0    | 27440402 |
| eCl@ss 9.0    | 27440402 |

ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002637 |
| ETIM 6.0 | EC002637 |
| ETIM 7.0 | EC002637 |

## Approvals

Approvals

Approvals

cULus Recognized / EAC

## SMD female connectors - FP 1,27/ 80-FV 6,25 - 1714901

### Approvals

Ex Approvals

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#### Approval details

cULus Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> E118976-20170331

EAC



B.01687

### Accessories

#### Additional products

SMD male connectors - FP 1,27/ 80-MV 3,25 - 1714933



SMD male connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 80, pitch: 1.27 mm, color: black, contact surface: Gold

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SMD male connectors - FP 1,27/ 80-MV 1,75 - 1714945



SMD male connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 80, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

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SMD male connectors - FP 1,27/ 80-MH - 1714923



SMD male connector, Nominal current at 20 °C: 1.4 A, Test voltage: 500 V AC, number of positions: 80, pitch: 1.27 mm, color: black, contact surface: Gold, mounting: SMD soldering

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