

# Product Data Sheet

One27 Male mid-profile,  
Part No. 413-53080-51

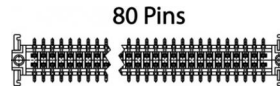
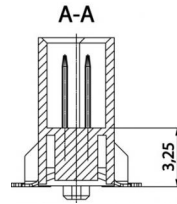
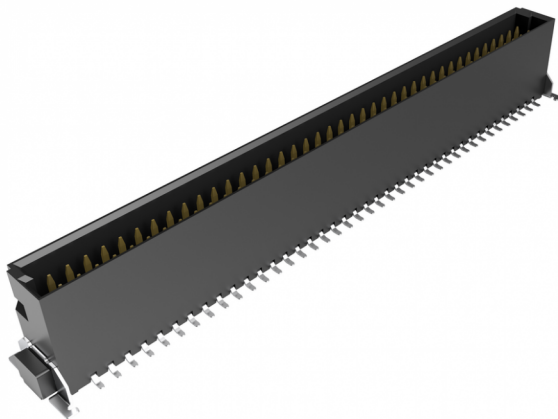


Illustration similar



Parallel



Perpendicular



SMT



Cable-to-Board



High Density



Rugged

- 80 pins
- unmated stacking height: 3.25 mm
- for board-to-board distances from 9.5 to 18.4 mm
- SMT
- pitch 1.27 mm
- Performance level 1



» to product on [www.ept.de](http://www.ept.de)



» to product group One27

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## Technical Specifications

### Basics

No. of Contacts	80
Termination Technology	SMT
Board-to-Board Distance	9.5 mm to 18.4 mm
Operating Temperature Range	-55°C to + 125°C

### Material

Insulator Material	LCP, UL 94 V-0
CTI value <i>IEC 60112</i>	175
Contact Material	copper alloy
Plating	Au over NiP over Ni
Termination area	Sn over Ni

### Mechanical

Pitch	1.27 mm
Mating Force per Pin	≤ 0.5 N
Separating Force per Pin	≥ 0.1 N
Durability <i>IEC 60512-9-1</i>	Performance level 1: 500 mating cycles
Coplanarity	≤ 0.1 mm
Vibration, sinusoidal <i>IEC 60512-6-4</i>	10 - 2000 Hz, 20g
Contact mating problems if vibrations occur, sinusoidal <i>IEC 60512-2-5</i>	≤ 1 μs
Shock, semi-sinusoidal <i>IEC 60512-6-3</i>	50g, 11 ms
Contact mating problems if shock occur, semi-sinusoidal <i>IEC 60512-2-5</i>	≤ 1 μs

### Electrical

Operational Current <i>IEC 60512-5-2</i>	3.1 A at 20°C (4 of 50 pins) 1.4 A at 20°C (50 of 50 pins)
Contact Resistance <i>IEC 60512-2-1</i>	≤ 25 mΩ
Clearance and Creepage	min. 0.4 mm
Insulation Resistance <i>IEC 60512-3-1</i>	≥ 10 GΩ
Test Voltage <i>IEC 60512-4-1</i>	500 VAC

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## Technical Specifications

### Processing

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Soldering Temperature 20 - 40 s at 260°C  
*JEDEC J-STD-020E*

MSL 1  
*JEDEC J-STD-020E*

Assembly Pick and Place

### Approval / Compliance

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UL file E130314

Environment RoHS complaint

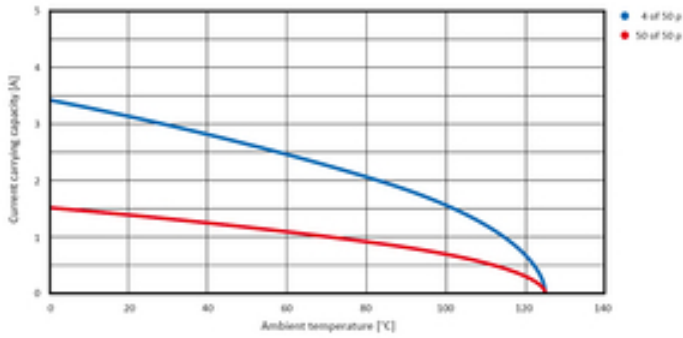
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## Derating Diagram

Current carrying capacity One27  
max. 3.1A at 20°C (4 of 50 pin)  
max. 1.4A at 20°C (50 of 50 pin)



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## Modifications

Available on request

- different number of pins
- other performance level

## Drawings

Component data in 2D and 3D format you can download here:

[» PDF](#)

[» 3D IGES](#)

[» 3D STEP](#)

[» 3D PDF](#)