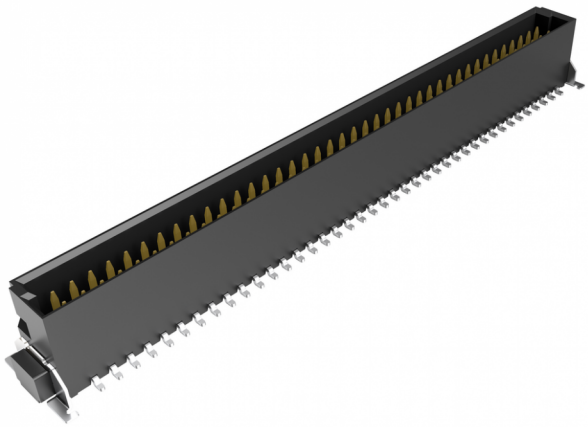
Product Data Sheet

One27 Male low-profile,
Part No. 413-52080-51



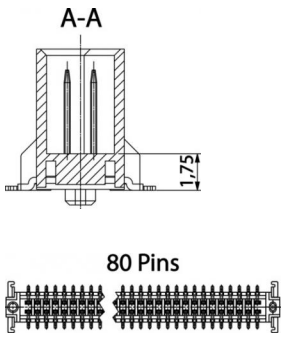


Illustration similar

Parallel | Perpendicular | SMT | Cable-to-Board | High Density | Rugged

- 80 pins
- unmated stacking height: 1.75 mm
- for board-to-board distances from 8.0 to 16.9 mm
- SMT
- pitch 1.27 mm
- Performance level 1

» to product on 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	8.0 mm to 16.9 mm
Operating Temperature Range	-55°C to +125°C

Material

Insulator Material	LCP, UL 94 V-0
CTI value *IEC 60112*	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 *IEC 60512-9-1*	Performance level 1: 500 mating cycles
Coplanarity	≤ 0.1 mm
Vibration, sinusoidal *IEC 60512-6-4*	10 - 2000 Hz, 20g
Contact mating problems if vibrations occur, sinusoidal *IEC 60512-2-5*	≤ 1 µs
Shock, semi-sinusoidal *IEC 60512-6-3*	50g, 11 ms
Contact mating problems if shock occur, semi-sinusoidal *IEC 60512-2-5*	≤ 1 µs

Electrical

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

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Technical Specifications

Processing

Soldering Temperature *JEDEC J-STD-020E*	20 - 40 s at 260°C
MSL *JEDEC J-STD-020E*	1
Assembly	Pick and Place

Approval / Compliance

UL file	E130314
Environment	RoHS compliant

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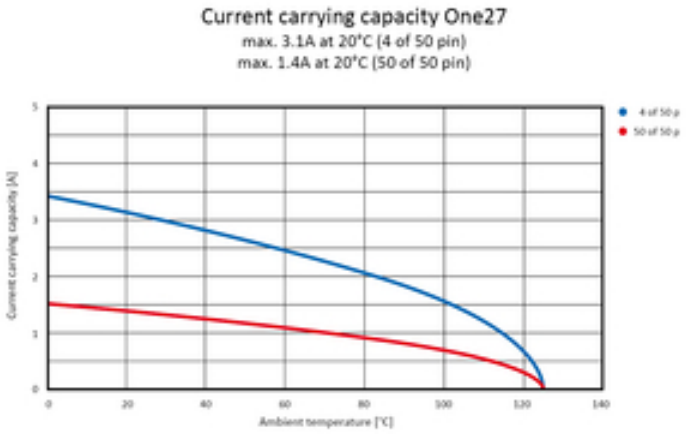
Derating Diagram



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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

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