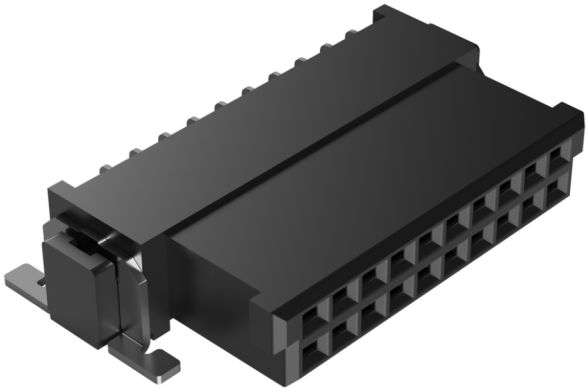
Product Data Sheet

One27 Angled Connector, Part No. 404-51020-51



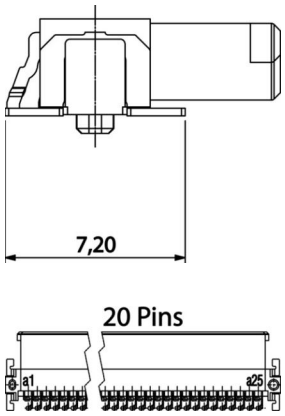


Illustration similar

Perpendicular

Horizontal

SMT

High Density

Rugged

- 90° angled
- Contact overlap: 1.5 mm
- Number of poles: 20
- SMT Connectivity
- Grid: 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	20
Termination Technology	SMT
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 PdNi 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*	Grade 1: 500 insertion cycles
Coplanarity	≤ 0.1 mm
Vibration, sinusoidal *IEC 60512-6-4*	10–2000 Hz, 20 g
Contact mating problems if vibrations occur, sinusoidal *IEC 60512-2-5*	≤ 1 µs
Shock, semi-sinusoidal *IEC 60512-6-3*	50 g, 11 ms
Contact mating problems if shock occur, semi-sinusoidal *IEC 60512-2-5*	≤ 1 µs
Overmating Distance	0.9 mm
Wipe lenght	1.5 mm
Center offset	± 0.7 mm
Axial offset when mated (x/y)	± 0.4 mm
Angular offset longitudinally	± 4°
Angular offset transversally	± 2°

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Technical Specifications

Electrical

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

Processing

Soldering Temperature *JEDEC J-STD-020E*	20–40 seconds 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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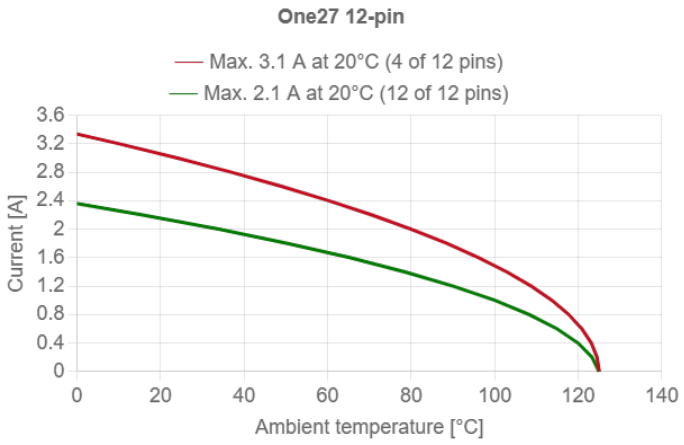
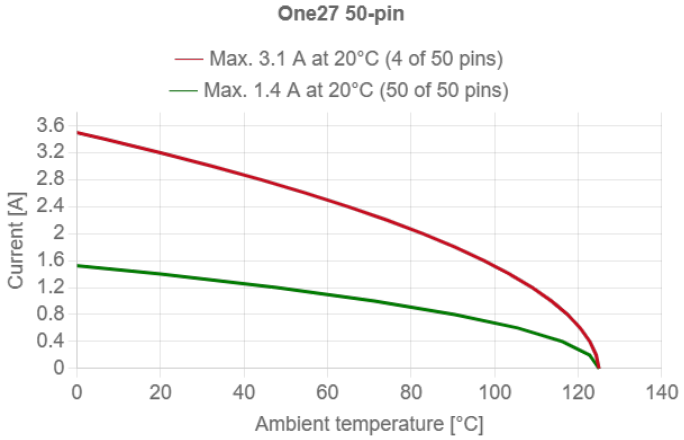
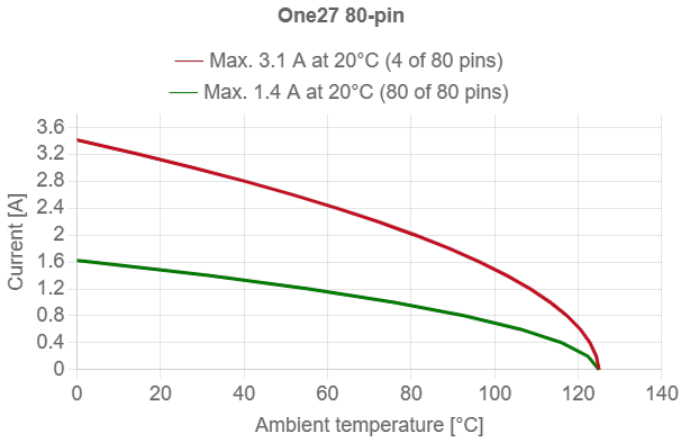
Derating Diagram







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Modifications

Available on request

- other pole counts
- other quality grades

Drawings

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

» PDF » 3D IGES » 3D STEP » 3D PDF

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