

Product Data Sheet

One27 Low-Profile Connector, Part No. 404-52050-51

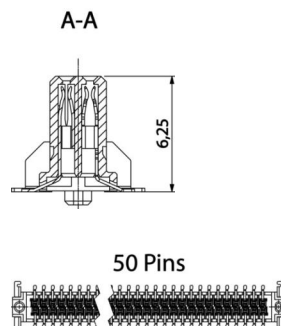
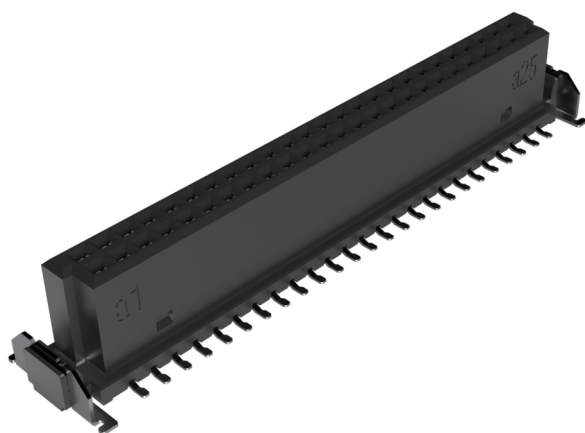


Illustration similar



Parallel



Perpendicular



SMT



High Density



Rugged

- Can be combined for PCB spacing of 8.0–12.6 mm
- Contact overlap: 1.5 mm
- 50 pins in a 1.27 mm pitch
- SMT Connectivity
- Height (unplugged): 6.25 mm
- Performance Level 1



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» to product group One27

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Technical Specifications

Basics

No. of Contacts	50
Termination Technology	SMT
Board-to-Board Distance	8.0 mm – 12.6 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 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 <i>IEC 60512-9-1</i>	Grade 1: 500 insertion cycles
Coplanarity	≤ 0.1 mm
Vibration, sinusoidal <i>IEC 60512-6-4</i>	10–2000 Hz, 20 g
Contact mating problems if vibrations occur, sinusoidal <i>IEC 60512-2-5</i>	≤ 1 μ s
Shock, semi-sinusoidal <i>IEC 60512-6-3</i>	50 g, 11 ms
Contact mating problems if shock occur, semi-sinusoidal <i>IEC 60512-2-5</i>	≤ 1 μ s
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	$\pm 4^\circ$
Angular offset transversally	$\pm 2^\circ$

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Electrical

Operational Current <i>IEC 60512-5-2</i>	1.4 A at 20°C (50-pin)
Contact Resistance <i>IEC 60512-2-1</i>	$\leq 25 \text{ m}\Omega$
Clearance and Creepage	at least 0.4 mm
Insulation Resistance <i>IEC 60512-3-1</i>	$\geq 10 \text{ G}\Omega$
Test Voltage <i>IEC 60512-4-1</i>	500 VAC

Processing

Soldering Temperature <i>JEDEC J-STD-020E</i>	20–40 seconds at 260°C
MSL <i>JEDEC J-STD-020E</i>	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](#)