

# Product Data Sheet

Zero8 plug low-profile unshielded,  
Part No. 405-52080-51

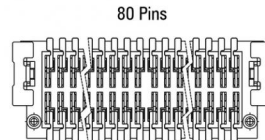
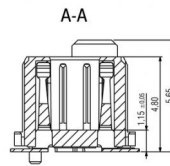
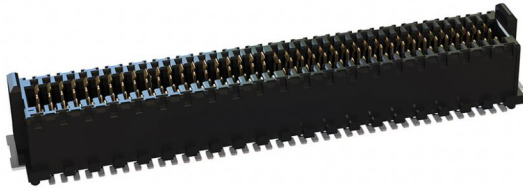


Illustration similar



Parallel



SMT



High Density



High Speed



Rugged

- 80 pins
- unmated stacking height: 1.15 mm
- SMT
- 0.8 mm pitch
- Performance level 1



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



» to product group Zero8

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## Technical Specifications

### Basics

Performance Level <i>IEC 60512-9-1:2010</i>	1
No. of Contacts	80
Termination Technology	SMT
Board-to-Board Distance	6.0 mm to 13.5 mm
Operating Temperature Range	-55°C to + 125°C

### Material

Insulator Material	LCP, UL 94 V-0
CTI value <i>IEC 60112</i>	150
Contact Material	Copper alloy
Plating	Au over Ni
Termination area	Sn over Ni

### Mechanical

Pitch	0.8 mm
Mating Force per Pin	≤ 0.5 N
Separating Force per Pin	≤ 0.4 N
Durability <i>IEC 60512-9-1</i>	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

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### Electrical

Operational Current <i>IEC 60512-5-2</i>	1.7 A at 20°C (80 of 80 pins) 5.5 A at 20°C (2 of 80 pins) 5.1 A at 20°C (4 of 80 pins) 16 A at 20°C (shield of 80 pins)
Contact Resistance <i>IEC 60512-2-1</i>	≤ 20 mΩ
Clearance and Creepage	0.25 mm
Insulation Resistance <i>IEC 60512-3-1</i>	> 5 GΩ
Test Voltage <i>IEC 60512-4-1</i>	500 VAC
Data Transfer Rate	16 Gbps

### Processing

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

### Approval / Compliance

UL file	E130314
Environment	RoHS konform

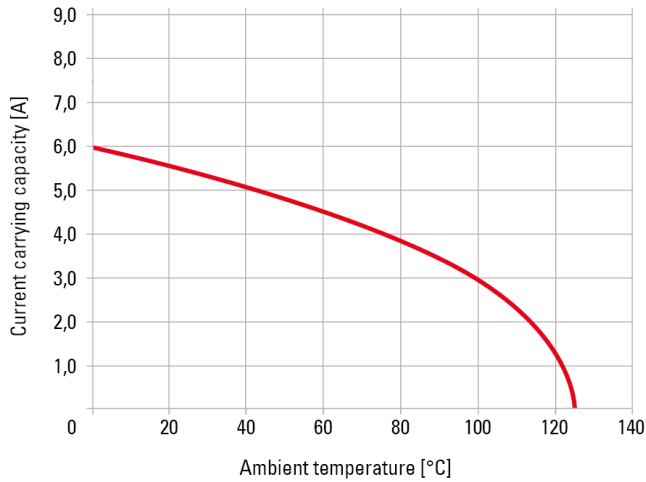
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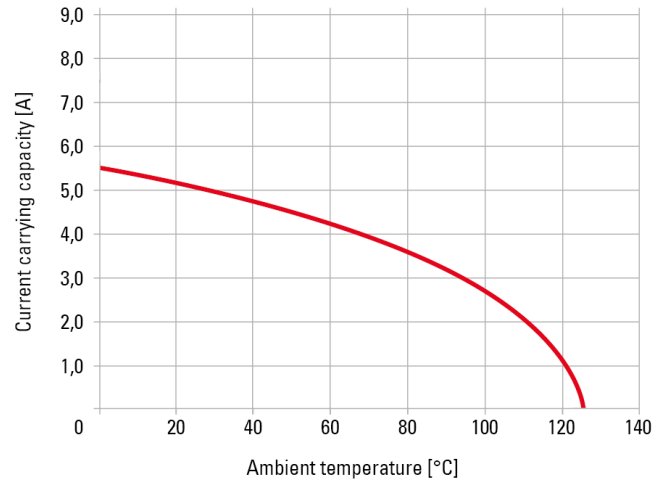


## Derating Diagram

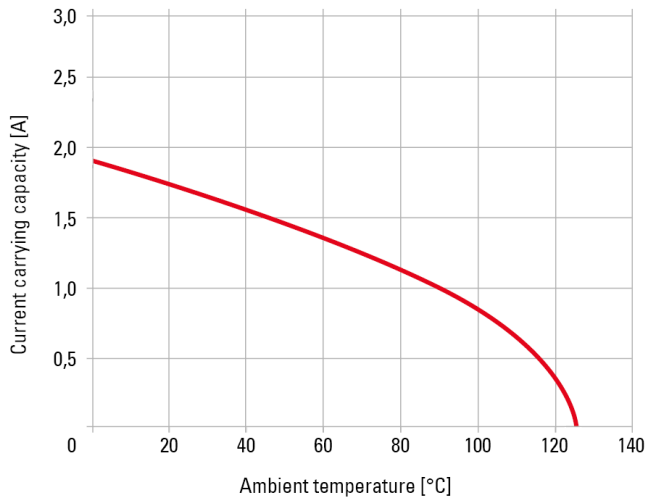
Current carrying capacity signal contact  
max. 5.5A at 20°C (2 of 80 pins)



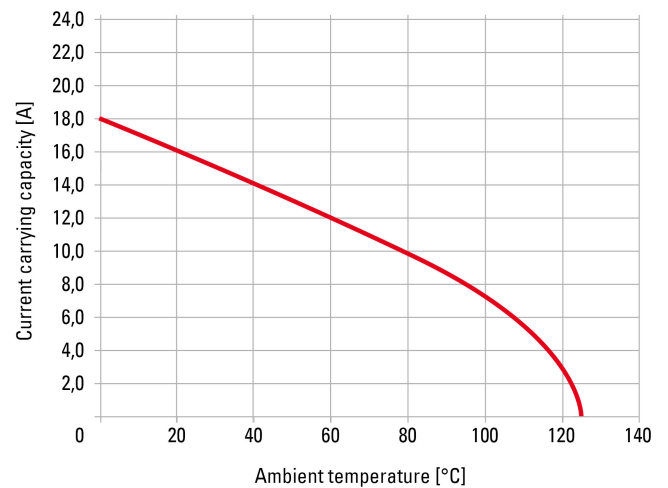
Current carrying capacity signal contact  
max. 5.1A at 20°C (4 of 80 pins)



Current carrying capacity signal contact  
max. 1.7A at 20°C (80 pins)



Current carrying capacity shield  
max. 16A at 20°C  
80 pin, low-profile



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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](#)