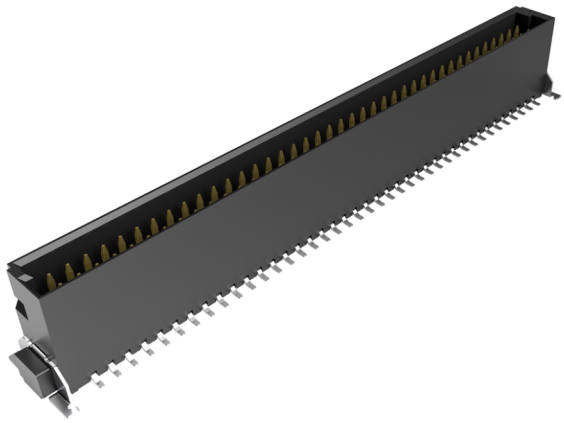
Product Data Sheet

One27 Male mid-profile,
Part No. 403-53080-51



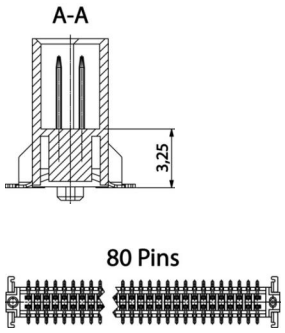


Illustration similar

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

- Can be combined for a PCB spacing (board-to-board distance) of 9.5–18.4 mm
- contact wipe 1.5 mm
- number of positions 80 in a 1.27 mm pitch
- termination technology SMT
- height (unplugged): 3.25 mm
- Performance Level 1

» to product on www.ept.de

» to product group One27

ept GmbH | Bergwerkstr. 50 | 86971 Peiting | Tel. +49 (0) 8861 / 25 01 0 | Fax +49 (0) 8861 / 55 07 | sales@ept.de | **www.ept.de**

Product Data Sheet

One27 Male mid-profile, Part No. 403-53080-51

Technical Specifications

Basics

No. of Contacts	80
Termination Technology	SMT
Board-to-Board Distance	9.5 mm – 18.4 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	gold over palladium-nickel over nickel
Termination area	tin over nickel

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, 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°

ept GmbH | Bergwerkstr. 50 | 86971 Peiting | Tel. +49 (0) 8861 / 25 01 0 | Fax +49 (0) 8861 / 55 07 | sales@ept.de | **www.ept.de**

Product Data Sheet

One27 Male mid-profile, Part No. 403-53080-51

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

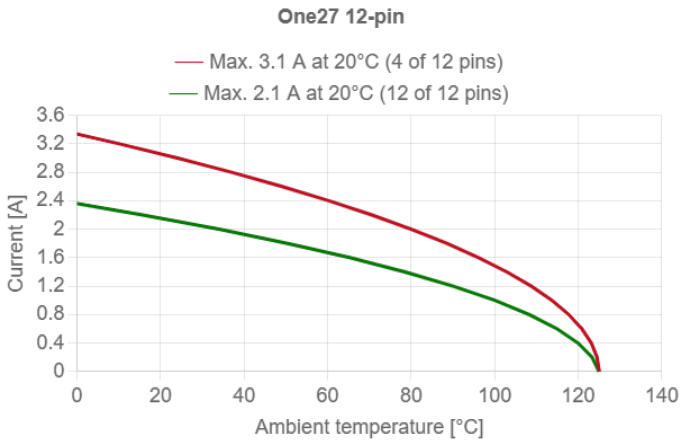
Soldering Temperature *JEDEC J-STD-020E*	20–40 seconds at 260°C
MSL *JEDEC J-STD-020E*	1
Assembly	Pick and Place

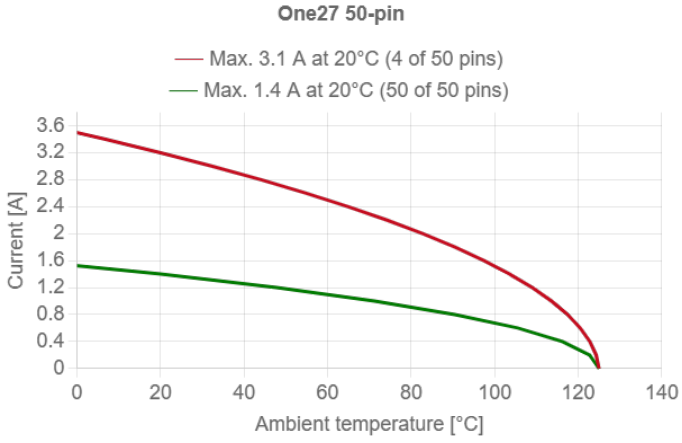
Approval / Compliance

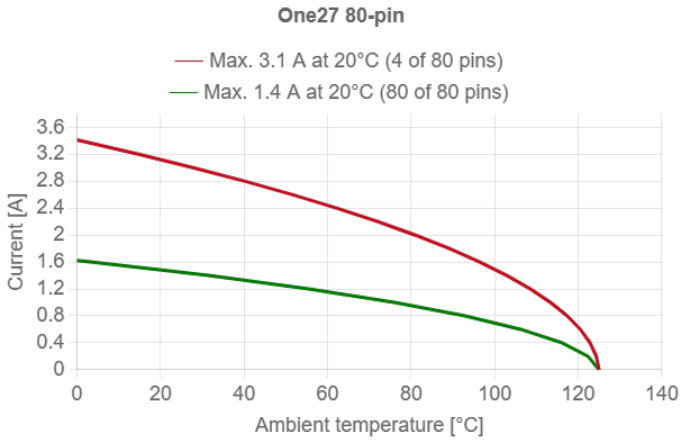
UL file	E130314
Environment	RoHS compliant

ept GmbH | Bergwerkstr. 50 | 86971 Peiting | Tel. +49 (0) 8861 / 25 01 0 | Fax +49 (0) 8861 / 55 07 | sales@ept.de | **www.ept.de**

Derating Diagram







ept GmbH | Bergwerkstr. 50 | 86971 Peiting | Tel. +49 (0) 8861 / 25 01 0 | Fax +49 (0) 8861 / 55 07 | sales@ept.de | **www.ept.de**

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

ept GmbH | Bergwerkstr. 50 | 86971 Peiting | Tel. +49 (0) 8861 / 25 01 0 | Fax +49 (0) 8861 / 55 07 | sales@ept.de | **www.ept.de**