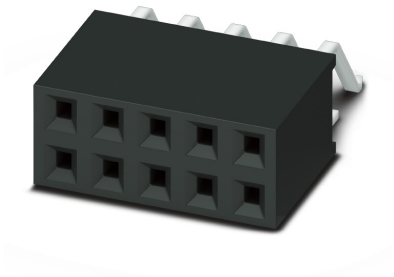
2021-06-25
Product version 00
Document revision 00

Data sheet

Order No.: 1156907

Type: FQ 2,54D/ 80-SH-0-BT

SMD socket, Reflow soldering



The figure shows the 10-pos. version

1 Main features



- No. of pos. 80
- Test voltage 500 V AC
- Color black (9005)
- Pitch 2.54 mm
- Nominal current 3 A
- Mounting type SMD soldering
- Connection direction 0 °
- Type of packaging Tube magazine

2 Your advantages

- Reliable mechanical and electrical connections thanks to the double-sided contact system
- Designed for integration into the SMT soldering process
- Clear and cost-optimized design
- Suitable for a multitude of applications
- Stacked, coplanar or orthogonal PCB connections enable maximum flexibility in the device

Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1156907

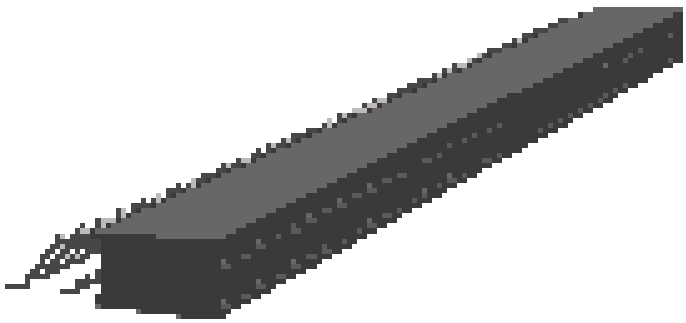
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4 3D model in PDF can be activated (Acrobat Reader only)



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5 General Technical Data

5.1 item properties

Order No.	1156907
Type	FQ 2,54D/ 80-SH-0-BT
Connector system	FINEPITCH FQ 2,54
Product type	SMD socket
Type of contact	Female connector
Range of articles	FQ 2,54D/…-SH
Pitch	2.54 mm
Number of positions	80
Number of levels	2
Type of locking	without
Mounting type	SMD soldering
Connection direction of the connector to the PCB	0 °
Pin layout	Linear pad geometry

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6 Mounting

6.1 Flange mounting

Type of locking	without

6.2 Material of metal parts

Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface contact area	Nickel (Ni) , Gold (Au)
Soldering area surface	Tin (Sn)
Surface characteristics	Selective coating

Insulating material data	Housing
Color	black (9005)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

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7 Dimensions

7.1 Dimensions for the product

Length	15.74 mm
Width	102 mm
Total height	5 mm
Installed height	5 mm
Coplanarity	≤ 0.15 mm

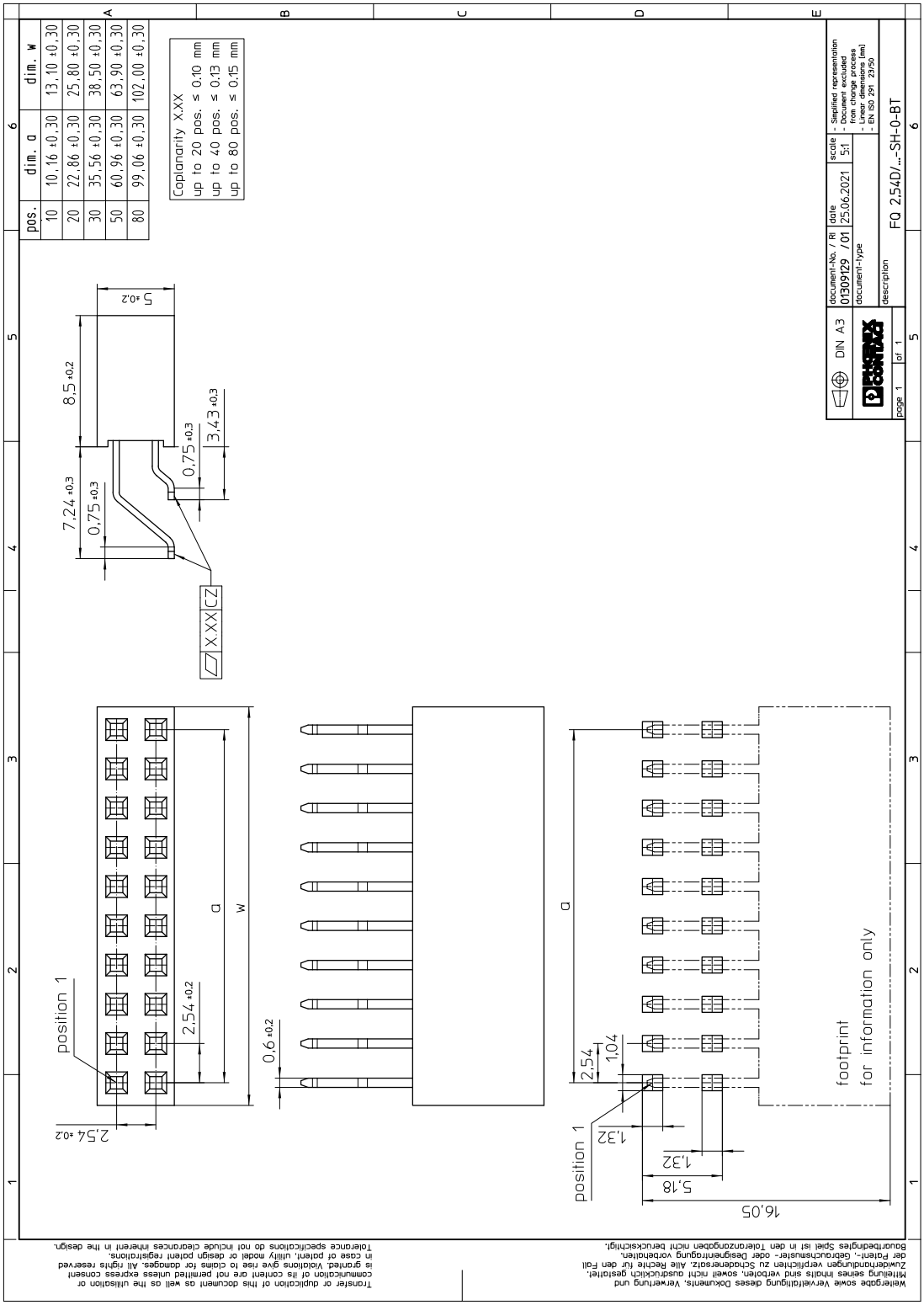
7.2 Dimensions for the application

Contact cover	0.4 mm
Overlap length	1.3 mm

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1156907 FQ 2,54D/ 80-SH-0-BT

8 Series drawing



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9 Product notes

9.1 General information

Notes on operation	The permissible voltage during operation depends on the application, taking into consideration the air clearances and creepage distances within the scope of insulation requirements in accordance with IEC 60664-1.

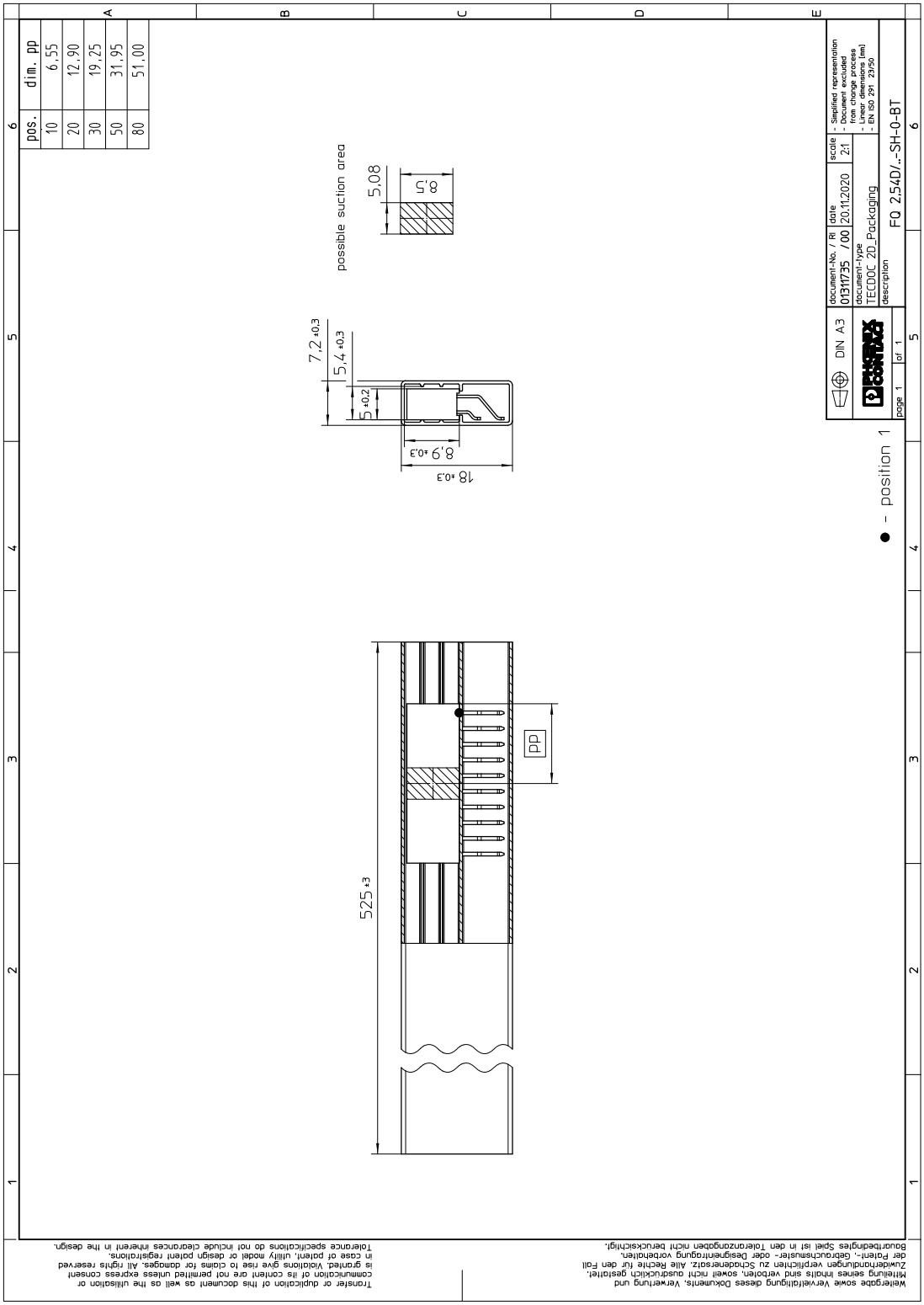
10 Packaging information

Type of packaging	Tube magazine
Pieces per package	40

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1156907 FQ 2,54D/ 80-SH-0-BT

11 Blister drawing



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12 Application

12.1 Temperature limit values

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 125 °C

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13 General tests

13.1 Specification

Brief description	Board-to-board connectors

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14 Mechanical tests

14.1 Insertion and withdrawal force per contact

Insertion and withdrawal force per contact	≤ 2.9 N

Specification	IEC 60512-9-1:2010-03 (following)
	100 Insertion/withdrawal cycles

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15 Electrical tests

Nominal current at 20 °C	3 A IEC 60512-5-2:2002-02 (80-pos.)
Test voltage	500 V AC IEC 60512-4-1:2003

15.1 Air and creepage distances

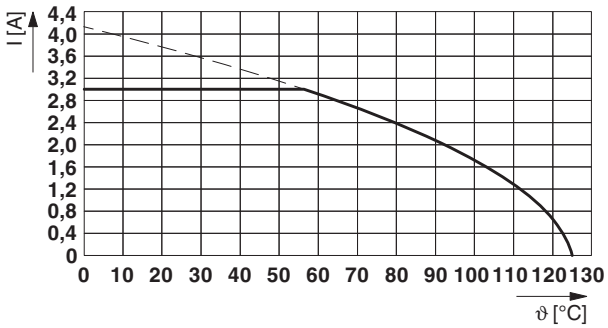
Minimum value for clearance and creepage distance	0.4 mm

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16 Current carrying capacity/derating curves

Specification	IEC 60512-5-2:2002-02
Note	max. 3 A at 20°C (80-pos.)
Reduction factor	0.8

Type: FQ 2,54D/...-SH-O-BT with FQ 2,54D/...-PH-1-BT



16.1 Insulation resistance

Insulation resistance	> 1 GΩ, (IEC 60512-3-1:2002-02)

16.2 forward resistance

Contact resistance	≤30 mΩ, (IEC 60512-2-1:2002-02)

16.3 Vibration test

Specification	IEC 60068-2-6:2007-12
Result	Test passed
Frequency	10 - 55 - 10 Hz
Sweep speed	1 octave/min
Amplitude	1.52 mm
Acceleration	181 m/s²
Test duration per axis	2 h
Test directions	X-, Y- and Z-axis
Note	

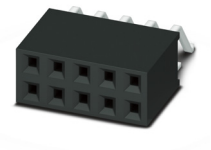
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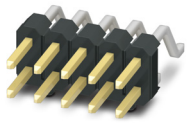
17 Commercial Data

Order No.	1156907
Type	FQ 2,54D/ 80-SH-0-BT
Pieces per package	40
Net weight	12 g
GTIN	4063151160555
	Information that applies locally, see link on page 1

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18 Combination tests





FQ 2,54D/…-SH	**FQ 2,54D/...-PH**			
Mechanical tests				
Insertion/withdrawal force per position	approx. 2.9 N / 2.9 N			
Durability tests				
Contact resistance R_1	20 mΩ			
Insertion/withdrawal cycles	100			
Contact resistance R_2	30 mΩ			
Test voltage	500 V AC			
Insulation resistance Requirements > 5 MΩ	> 1 GΩ			
Thermal tests				
Tested number of positions	80			
Test current	3 A			

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