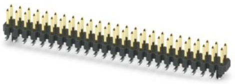
FQ 2,54D/ 50-PV- 380-1-BT - Pin strip

1156918

https://www.phoenixcontact.com/us/products/1156918



SMD pin header, nominal current: 3 A, test voltage: 500 V AC, number of positions: 50, pitch: 2.54 mm, color: black, contact surface: Au, contact connection type: Pin, mounting: SMD soldering

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

Commercial data

Item number	1156918
Packing unit	70 pc
Minimum order quantity	70 pc
Sales key	AA24
Product key	AAXGBB
GTIN	4063151159894
Weight per piece (including packing)	5.15 g
Weight per piece (excluding packing)	2.3 g
Customs tariff number	85366930
Country of origin	CN

Technical data

Notes

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.

Product properties

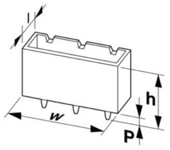
Product type	SMD pin header
Product family	FQ 2,54D/...-PV
Number of positions	50
Pitch	2.54 mm
Number of rows	2
Pin layout	Linear pad geometry

Electrical properties

Properties

Nominal current I_N	3 A (at 20°C 80-pos.)
Contact resistance	20 mΩ
Test voltage	500 V AC IEC 60512-4-1:2003-05

Dimensions

Dimensional drawing	
Pitch	2.54 mm
Width [w]	63.5 mm
Height [h]	10.2 mm
Length [l]	7.6 mm
Installed height	8.8 mm

Application

Contact cover	0.4 mm
Stack height	13.6 mm Tolerance: +1.3 mm (in combination with Range of articles:FQ 2,54D/...-SV)
Wipe length	1.3 mm

PCB design

Pad geometry	1.02 x 3.4 mm

Material specifications

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Selective coating
Metal surface contact area (top layer)	Gold (Au)
Metal surface contact area (middle layer)	Nickel (Ni)
Metal surface soldering area (top layer)	Tin (Sn)

Material data - housing

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

Connector

Connection 1

Insulating material	PA
CTI according to IEC 60112	600

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-2:2002-02
Tested number of positions	80

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 1 GΩ

Air clearances and creepage distances |

Insulating material group	I
Minimum value for clearance and creepage distance	0.4 mm

Mechanical tests

Insertion and withdrawal forces

Result	Test passed
No. of cycles	100
Insertion strength per pos. approx.	2.9 N
Withdraw strength per pos. approx.	2.9 N

Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
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

Durability test

Specification	IEC 60512-9-1:2010-03 (following)
Contact resistance R_1	20 mΩ
Contact resistance R_2	30 mΩ
Insertion/withdrawal cycles	100
Insulation resistance, neighboring positions	> 1 GΩ

Ambient conditions

Ambient temperature (operation)	-40 °C ... 125 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Mounting

Mounting type	SMD soldering
Pin layout	Linear pad geometry

Processing notes

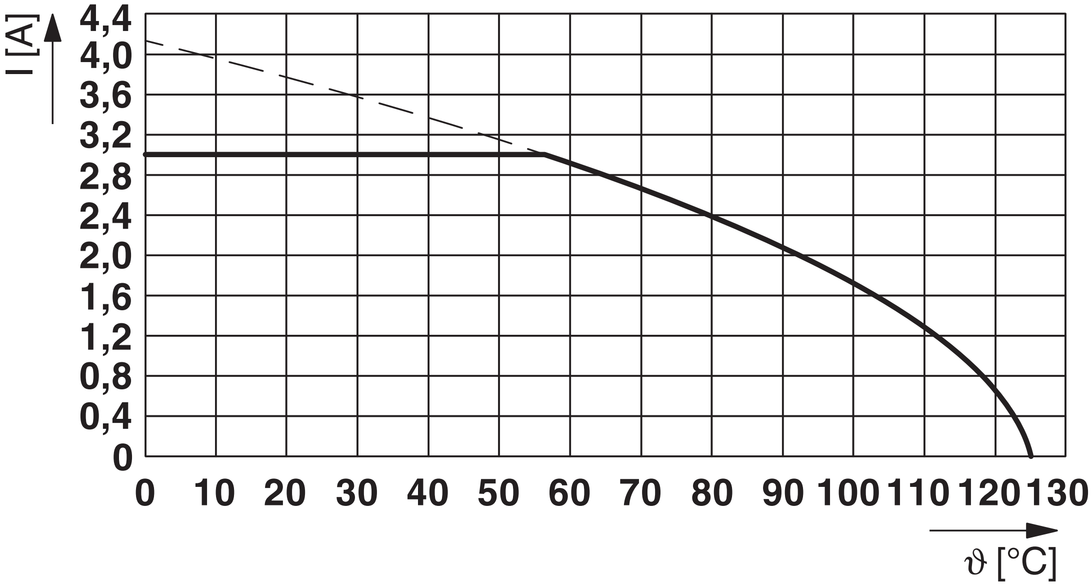
Process	Reflow soldering
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C

Packaging specifications

Type of packaging	Tube magazine

Drawings

Diagram



Type: FQ 2,54D/...-SV-1020-1-BT with FQ 2,54D/...-PV- 380-1-BT

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1156918

cULus Recognized
Approval ID: E118976

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 V	3 A	-	-

Classifications

ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

ETIM

ETIM 9.0	EC002637

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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