

1027706

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PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: CCA 2,5/..-G, pitch: 5 mm, mounting: THR soldering / wave soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- · Designed for integration into the SMT soldering process
- · Maximum flexibility when it comes to device design one header for connectors with different connection technologies
- · Closed contour for optimum stability of the plug-in connection

Commercial data

Item number	1027706
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA03
Product key	AACTAA
GTIN	4055626522845
Weight per piece (including packing)	1.95 g
Weight per piece (excluding packing)	1.69 g
Customs tariff number	85366930
Country of origin	DE



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Technical data

Product properties

Product type	PCB headers
Product family	CCA 2,5/G
Product line	COMBICON Connectors M
Number of positions	4
Pitch	5 mm
Number of connections	4
Number of rows	1
Number of potentials	4
Pin layout	Linear pinning
Solder pins per potential	1
Data management status	
Article revision	00

Electrical properties

Nominal current I _N	12 A
Nominal voltage U _N	320 V
Contact resistance	1.1 mΩ
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	400 V
Rated surge voltage (II/2)	4 kV

Mounting

Mounting type	THR soldering / wave soldering
Pin layout	Linear pinning

Processing notes

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1
Classification temperature T _c	260 °C
Solder cycles in the reflow	3

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	Tin-plated



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Result

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Metal surface contact area (top layer)	Tin (3 - 5 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)
Material data - housing	
Color (Housing)	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0
otes	
Details for soldering processes	Processing using reflow processes in compliance with IEC 60068-2-58 or DIN EN 61760-1 (latest version) Moisture Sensitive Level (MSL) = 1 according to IPC/JEDEC J-STD-020-C
Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load
mensions	
	Py
Pitch	5 mm
Width [w]	22.8 mm
Height [h]	10.57 mm
Length [I]	12 mm
Installed height	8.57 mm
Solder pin length [P]	2.6 mm
Pin dimensions	1 x 1 mm
PCB design	
Hole diameter	1.6 mm
echanical tests	
Visual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02

Test passed



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Resistance of inscriptions

esistance of inscriptions	
Specification	IEC 60068-2-70:1995-12
Result	Test passed
Polarization and coding	
Specification	IEC 60512-13-5:2006-02
Result	Test passed
Contact holder in insert	
Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed
nsertion and withdrawal forces	
Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
hermal test Test group C Specification	IEC 60512-5-1:2002-02
Tested number of positions	24
nsulation resistance	
Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	
Nir algorithms and graphing distances I	> 5 MΩ
di clearances and creepage distances	> 5 MΩ
Specification	> 5 MΩ IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Specification Insulating material group	IEC 60664-1:2007-04 Illa
Specification Insulating material group Comparative tracking index (IEC 60112)	IEC 60664-1:2007-04 Illa CTI 175
Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3)	IEC 60664-1:2007-04 IIIa CTI 175 250 V
Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3)	IEC 60664-1:2007-04 IIIa CTI 175 250 V 4 kV
Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3)	IEC 60664-1:2007-04 IIIa CTI 175 250 V 4 kV 3 mm
Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3)	IEC 60664-1:2007-04 IIIa CTI 175 250 V 4 kV 3 mm 4 mm

3 mm

3.2 mm 400 V

4 kV

3 mm

4 mm

Environmental and real-life conditions

minimum creepage distance (II/2)

minimum creepage distance (III/2)

Rated insulation voltage (II/2)

Rated surge voltage (II/2)

minimum clearance value - non-homogenous field (III/2)

minimum clearance value - non-homogenous field (II/2)



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Type of packaging

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz 60.1 Hz)
Acceleration	5g (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
rability test	
Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R ₁	1.1 mΩ
Contact resistance R ₂	1.2 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ
matic test	
Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV
bient conditions	
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C 70 °C
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C

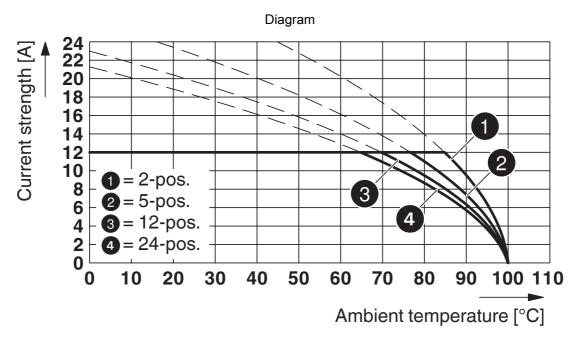
packed in cardboard



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Drawings



Type: MSTB 2,5/...-ST with CCA 2,5/...-G P20 THR



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Classifications

UNSPSC 21.0

ECLASS

EC	CLASS-11.0	27460201
EC	CLASS-12.0	27460201
EC	CLASS-13.0	27460201
ETIM		
ET	TIM 8.0	EC002637
UNSPS	SC	

39121400



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Environmental product compliance

EU RoHS

20 1.01.0	
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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