SAMPLE PTSM 0,5/ 4-2,5-H SMDWH - PCB terminal block



1820945

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Printed circuit board terminal, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of potentials: 4, number of rows: 1, number of positions per row: 4, product range: PTSM 0,5/..-H-SMD WH, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: SMD soldering, conductor/PCB connection direction: 0 °, color: signal white, Pin layout: Linear pad geometry, number of solder pins per potential: 1, type of packaging: packed in cardboard. SAMPLE set with 5 items in belt section. When used as part of soldering process, please use items without SAMPLE marking

Your advantages

- · White design: Stable color when welding and during use
- · Time saving push-in connection, tools not required
- · Defined contact force ensures that contact remains stable over the long term
- · High current carrying capacity of 6 A in very compact dimensions
- · Designed for integration into the SMT soldering process
- Additional solder anchors reduce the mechanical strain on the soldering spots

Commercial data

Item number	1820945
Packing unit	5 pc
Minimum order quantity	5 pc
Sales key	AACBBA
Product key	AAKDAB
GTIN	4046356787628
Weight per piece (including packing)	1.46 g
Weight per piece (excluding packing)	1.41 g
Country of origin	DE



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Technical data

Product properties

Product type	Printed circuit board terminal
Product family	PTSM 0,5/H-SMD WH
Product line	COMBICON Terminals XS
Number of positions	4
Pitch	2.5 mm
Number of connections	4
Number of rows	1
Number of potentials	4
Pin layout	Linear pad geometry
Solder pins per potential	1
Data management status	
Article revision	00

Electrical properties

Nominal current I _N	6 A
Nominal voltage U _N	160 V
Rated voltage (III/3)	63 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology	
Nominal cross section	0.5 mm ²
Conductor connection	
Connection method	Push-in spring connection
Conductor cross section rigid	0.14 mm ² 0.5 mm ²
Conductor cross section flexible	0.2 mm ² 0.5 mm ² (up to 0.75 mm ² supported, with a stripping length of 7.5 mm and a rated insulation voltage of 32 V at III/2)
Conductor cross section AWG	26 20
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² 0.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² 0.34 mm ² (possible from 0.14 mm ² , when using ferrule AI 0.14- 6 GY in combination with crimping pliers CRIMPFOX 10T-F)
Cylindrical gauge a x b / diameter	- / 1.2 mm
Stripping length	6 mm



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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
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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 μm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 μm Sn)
aterial data - housing Color (Housing)	signal white (9003)
	signal white (9003) PA GF
Color (Housing)	
Insulating material	

Dimensions

Dimensional drawing	h b b b b b b b b b b b b b b b b b b b
Pitch	2.5 mm
Width [w]	14.4 mm
Height [h]	5.12 mm
Length [I]	11 mm
Installed height	5 mm
PCB design	
Pad geometry	1.4 x 3.4 mm
Pin spacing	2.5 mm

Mechanical tests



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Connection test	
Specification	IEC 60998-2-2:2002-12
Result	Test passed
Test for conductor demons and cleakening	
Test for conductor damage and slackening Specification	IEC 60998-2-2:2002-12
Result	
Result	Test passed
Pull-out test	
Specification	IEC 60998-2-2:2002-12
Conductor cross section/conductor type/tractive force	0.14 mm² / solid / > 10 N
setpoint/actual value	0.2 mm² / flexible / > 10 N
	0.5 mm² / solid / > 20 N
	0.75 mm² / flexible / > 30 N
Flexion test	
Specification	IEC 60998-2-2:2002-12
Result	Test passed
lectrical tests	
Temperature-rise test	
Temperature-rise test Specification	IEC 60998-2-1:2002-12
	IEC 60998-2-1:2002-12 Increase in temperature ≤ 45 K
Specification	
Specification Requirement temperature-rise test	
Specification Requirement temperature-rise test Insulation resistance	Increase in temperature ≤ 45 K
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions	Increase in temperature ≤ 45 K IEC 60998-1:2002-12
Specification Requirement temperature-rise test Insulation resistance Specification	Increase in temperature ≤ 45 K IEC 60998-1:2002-12
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ
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Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112)	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I CTI 600
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3)	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I CTI 600 63 V
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3)	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I CTI 600 63 V 2.5 kV
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) minimum clearance value - non-homogenous field (III/3)	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I CTI 600 63 V 2.5 kV 1.5 mm
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3)	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I CTI 600 63 V 2.5 kV 1.5 mm 1.6 mm
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/2)	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I CTI 600 63 V 2.5 kV 1.5 mm 1.6 mm 160 V
Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2)	Increase in temperature ≤ 45 K IEC 60998-1:2002-12 > 5 MΩ IEC 60664-1:2007-04 I CTI 600 63 V 2.5 kV 1.5 mm 1.6 mm 160 V 2.5 kV
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Environmental and real-life conditions

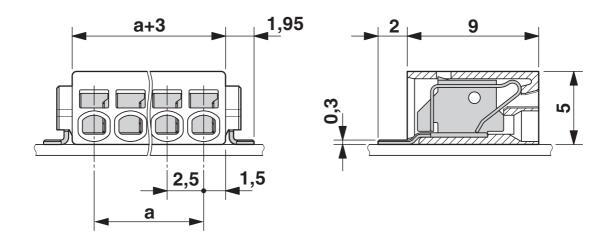
Vibration test	
Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz 60.1 Hz)
Acceleration	5g (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Glow-wire test	
Specification	IEC 60998-1:2002-12
Temperature	850 °C
Time of exposure	5 s
Ambient conditions	
Ambient temperature (operation)	-40 °C 100 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C 70 °C
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C
ckaging specifications	
Type of packaging	packed in cardboard

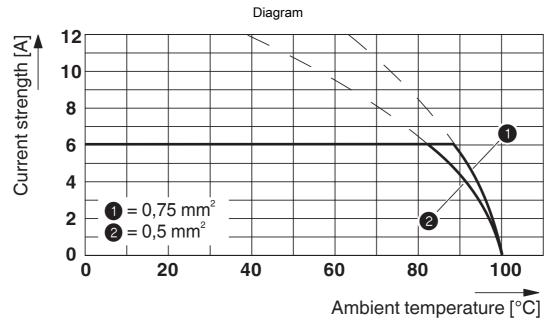


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Drawings

Dimensional drawing

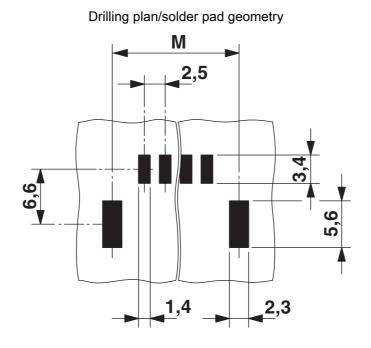




Type: PTSM 0,5/...-2,5-H SMD WH (L) R.. Tested in accordance with DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 5



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Classifications

ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

ETIM

	ETIM 9.0	EC002643		
UN	UNSPSC			
	UNSPSC 21.0	39121400		



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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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