PCB terminal block - SPT-SMD 1,5/ 2-H-3,81 R24 - 1824637

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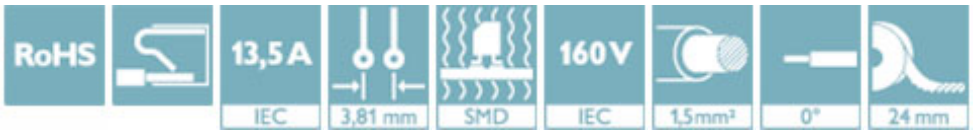
PCB terminal block, nominal current: 13.5 A, nom. voltage: 160 V, pitch: 3.81 mm, number of positions: 2, connection method: Push-in spring connection, mounting: SMD soldering, conductor/PCB connection direction: 0 °, color: black. Sample values available under SAMPLE SPT...

The figure shows the 10-position version

Why buy this product

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive use through colour coded actuation lever
- Designed for integration into the SMT soldering process
- Quick and convenient testing using integrated test option
- Operation and conductor connection from one direction enable integration into front of device
- Anti-rotation pins reduce the mechanical strain on the soldering spots



Key Commercial Data

Packing unit	300 STK
Minimum order quantity	300 STK
GTIN	4 046356 816830
GTIN	4046356816830

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	SPT 1,5/..-H-SMD
Pitch	3.81 mm
Number of positions	2
Connection method	Push-in spring connection
Mounting type	SMD soldering
Pin layout	Linear pad geometry

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Technical data

Item properties

Number of levels	1

Electrical parameters

Rated current	13.5 A
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

Connection capacity

Conductor cross section solid	0.2 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG / kcmil	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm² ... 0.75 mm²

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)

Material data - housing

Housing color	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

Dimensions for the product

Length [l]	13.6 mm
Width [w]	7.81 mm
Height [h]	7.7 mm
Pitch	3.81 mm
Height (without solder pin)	7.7 mm
Dimension a	3.81 mm
Pin spacing	7 mm

Dimensions for PCB design

Hole diameter	1.1 mm
Pin spacing	7 mm

Packaging information

Type of packaging	24 mm wide tape
Pieces per package	300

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Technical data

Packaging information

Denomination packing units	Pcs.
[W] tape width	24 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	30.4 mm
Outer packaging type	Transparent-Bag

Processing notes

Process	Reflow soldering
Specification	Following IPC/JEDEC J-STD-020D.1:2008-03
	Following IEC 60068-2-58:2005-02
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C
Solder cycles in the reflow	3

Ambient conditions

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

Termination and connection method

Connection test	IEC 60998-2-2:2002-12
Test result	Test passed

Pull-out test

Pull-out test	IEC 60998-2-2:2002-12
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm² solid 10 N > 0.2 mm² / solid / > 10 N
	0.2 mm² flexible 10 N > 0.2 mm² / flexible / > 10 N
	1.5 mm² solid 40 N > 1.5 mm² / solid / > 40 N
	1.5 mm² flexible 40 N > 1.5 mm² / flexible / > 40 N

Mechanical tests according to standard

Test specification	IEC 60998-2-2 (in parts)

Electrical tests

Rated current	13.5 A
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

Air clearances and creepage distances

Insulating material group	IIIa
Comparative tracking index (IEC 60112:2003-01)	CTI 175
Voltage	160 V
Rated insulation voltage (III/3)	160 V
Rated insulation voltage (III/2)	160 V

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Technical data

Air clearances and creepage distances

Rated insulation voltage (II/2)	320 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2.5 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	3.2 mm

Current carrying capacity / derating curves

Specification	IEC 60998-2-2 (in parts)

Vibration test

Resistance to ageing, to humidity conditions, to ingress of solid objects and to harmful ingress of water	Test passed IEC 60998-1:2002-12 168 h/100°C 48 h/30 °C/92 %
Test result	Test passed
Test specification	IEC 60998-1:2002-12
Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Resistance to ageing, humidity and penetration of solids

Test result	Test passed
Test specification	IEC 60998-1:2002-12
Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Standards and Regulations

Connection in acc. with standard	EN-VDE
Flammability rating according to UL 94	V0

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

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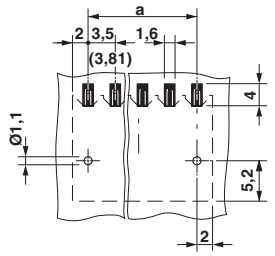
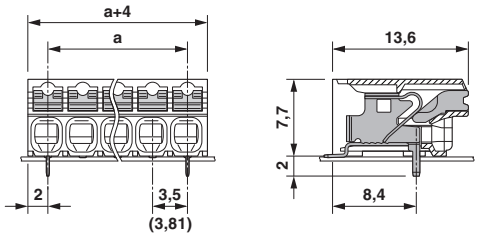
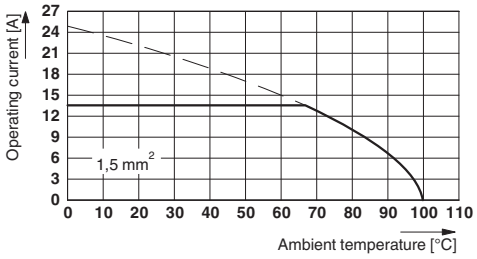
Drilling diagram



Dimensional drawing



Diagram



Type: SPT-SMD 1,5/...-H-3,5(3,81) R..
Tested in accordance with DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 5

Approvals

Approvals

Approvals

EAC / VDE approval of drawings / cULus Recognized / IECEE CB Scheme

Ex Approvals

Approval details

EAC		B.01742

VDE approval of drawings		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40046113

Nominal voltage UN	160 V
Nominal current IN	13.5 A

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Approvals

mm²/AWG/kcmil	0.2-1.5

cULus Recognized http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-20061129

	D	B
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A
mm²/AWG/kcmil	24-16	24-16

IECEE CB Scheme http://www.iecee.org/ DE1-60621

Nominal voltage UN	160 V
Nominal current IN	13.5 A
mm²/AWG/kcmil	0.2-1.5

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