# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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PCB terminal block, nominal current: 17.5 A, nom. voltage: 400 V, pitch: 5.08 mm, number of positions: 8, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green

The figure shows a combination as a 15-position version

#### Why buy this product

- ☑ Well-known connection principle allows worldwide use
- ☑ Low temperature rise, thanks to maximum contact force
- Mallows connection of two conductors
- $\ensuremath{\,^{\scriptsize \ensuremath{\mathbb{M}}}}$  The latching on the side enables various numbers of positions to be combined



### Key Commercial Data

Packing unit	50 STK
GTIN	4 017918 231361
GTIN	4017918231361

### Technical data

#### Item properties

Brief article description	PCB terminal block
Range of articles	MKDS 1,5
Pitch	5.08 mm
Number of positions	8
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M3
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	1

**Electrical parameters** 



# Technical data

#### **Electrical parameters**

Rated current	17.5 A
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV

#### Connection capacity

Conductor cross section solid	0.14 mm <sup>2</sup> 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	26 14
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> 1.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.14 mm <sup>2</sup> 1 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve	0.25 mm <sup>2</sup> 0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm² 1 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	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	green (6021)
Insulating material	РА
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

#### Dimensions for the product

Caption	Schematic representation – for additional information, see product range drawing in the Download Center
Length [1]	9.8 mm
Width [ w ]	40.64 mm
Height [ h ]	17.3 mm
Pitch	5.08 mm
Height (without solder pin)	13.8 mm
Solder pin [P]	3.5 mm



### Technical data

### Dimensions for the product

Pin dimensions	0.9 x 0.9 mm	
Dimension a	35.56 mm	
Dimensions for PCB design		
Hole diameter	1.3 mm	
Packaging information		
Type of packaging	packed in cardboard	
Pieces per package	50	
Denomination packing units	Pcs.	
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

#### Pull-out test

Pull-out test	IEC 60998-2-1:1990-04
	Test passed
Conductor cross section / conductor type / tensile force	0.14 mm² solid 10 N > 0.14 mm² / solid / > 10 N
	0.14 mm² flexible 10 N > 0.14 mm² / flexible / > 10 N
	2.5 mm² solid 50 N > 2.5 mm² / solid / > 50 N
	1.5 mm² flexible 40 N > 1.5 mm² / flexible / > 40 N

#### Mechanical tests according to standard

Test specification	IEC 60998-2-1 (in parts)
Electrical tests	
Rated current	17.5 A
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV

#### Air clearances and creepage distances

Insulating material group	1
Comparative tracking index (IEC 60112:2003-01)	CTI 600
Voltage	250 V
Rated insulation voltage (III/3)	250 V
Rated insulation voltage (III/2)	400 V
Rated insulation voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV
Minimum clearance - inhomogeneous field (III/3)	3 mm



### Technical data

#### Air clearances and creepage distances

Minimum clearance - inhomogeneous field (III/2)	3 mm	
Minimum clearance - inhomogeneous field (II/2)	3 mm	
Minimum creepage distance value (III/3)	3.2 mm	
Minimum creepage distance value (III/2)	3 mm	
Minimum creepage distance value (II/2)	3.2 mm	
Note on connection cross section	With connected conductor 2.5 mm <sup>2</sup> (solid).	

#### Current carrying capacity / derating curves

	Specification	IEC 60998-2-1 (in parts)
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### Vibration test

Resistance to ageing, to humidity conditions, to ingress of solid objects and to harmful ingress of water	Test passed IEC 60998-2-1:1990-04 168 h/100°C 48 h/30 °C/92 %
Test result	Test passed
Test specification	IEC 60998-2-1:1990-04
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 60998-2-1:1990-04
Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

#### Standards and Regulations

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

#### **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1	
China RoHS	Environmentally Friendly Use Period = 50	
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"	

## Approvals

#### Approvals

#### Approvals

CSA / SEV / CCA / EAC / cULus Recognized / DNV GL / IECEE CB Scheme

Ex Approvals



# Approvals

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Approval details

CSA		tries/product-listing/ 13631
D		В
300 \	V	300 V
10 A		10 A
28-14	4	28-14
	D 300 V 10 A	D 300 V

SEV	https://www.electrosuisse.ch/en/meta/shop/product-certificates.html IK-41		IK-4199
Nominal voltage UN		250 V	
Nominal current IN		24 A	
mm²/AWG/kcmil		2.5	

CCA	IK-3249
Nominal voltage UN	250 V
mm²/AWG/kcmil	2.5

EAC	ERC	B.01742

US	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-197704	
D	В	
300 V	300 V	
10 A	15 A	
30-14	30-14	
	D 300 V 10 A	

DNV GL

http://exchange.dnv.com/tari/

TAE00001EV

IECEE CB Scheme	<b>CB</b> scheme	http://www.iecee.org/	CH-8225
Nominal voltage UN		250 V	

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### Approvals

Nominal current IN	24 A
mm²/AWG/kcmil	2.5

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