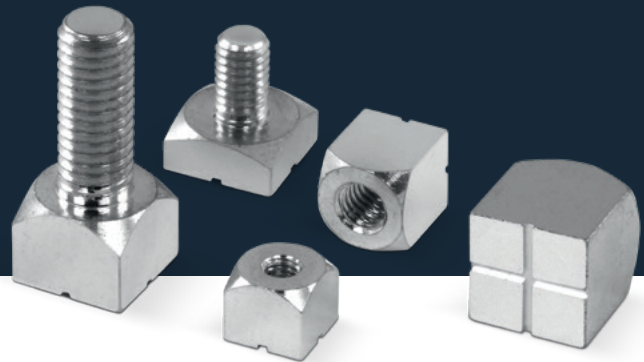


POWERONE SMD

Powerelements



PowerOne SMD high current contacts are the result of the consequent advancement of our products for the benefit of our customers. Powerelements can be processed in the typical SMT lines and are soldered in an infrared oven or with the vapour-phase system. Depending on the layout, currents of up to 300 amperes are possible. This makes these power supply terminals ideal for use as connection elements for fuses, for cable connections to the PCB, or as fastening elements.

Applications

- Contacting / mounting of switches, fuses, etc.
- Wire-to-board screw connection of cable lugs
- Board-to-board
- Electromechanics such as mounting of housings and space

Processing

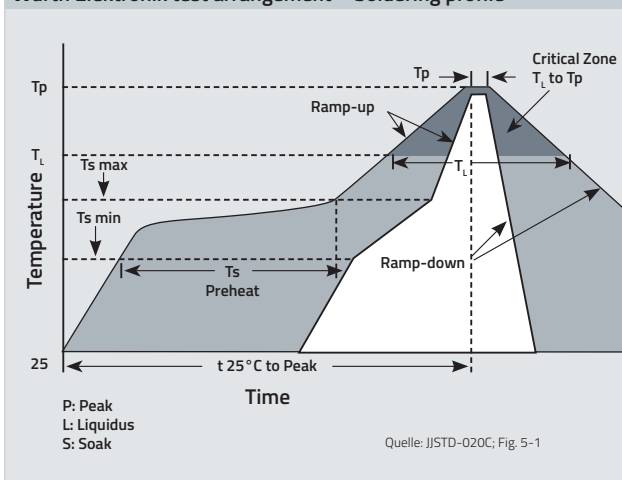
PowerOne SMD Powerelements are soldered onto the PCB and easily fit into an SMT assembly line. Due to the heat absorption of the component mass, individual tests are necessary for defining the parameters.

Use only with suitable fixing materials (see processing instructions).

Technical data	
Current carrying capacity	see table on the back
Material	CuZn39Pb3
Surface	tin-plated (standard)

Dimensions (standard)	
Length x width	from 7 x 7 mm
Height	from 7.5 mm

Würth Elektronik test arrangement – Soldering profile



With comprehensive engineering expertise and as a pioneer for Powerelements, we will meet your requirements and find the best technical and economical solution - whether from our standard range or as a customised variant.



REACH COMPLIANT



RoHS COMPLIANT

PCB design

The PCB has to be designed in accordance with the latest edition of IPC A 600.

Footprint indications are available.

Torques

Torque values for the various thread dimensions can be found in the table opposite. Different material combinations or different thread lengths of the connectors are not listed here. Depending on the thread length, the bushes can be tightened with higher torques.

Torques for brass

Thread	M4	M5	M6	M8
Nm	1.2	2.2	3.9	9.0

Current carrying capacity

The current carrying capacity has to be always considered in the context of the overall system. Our measurements have shown that the limiting factor usually lies in the PCB layout, and in the connection of a feed line.

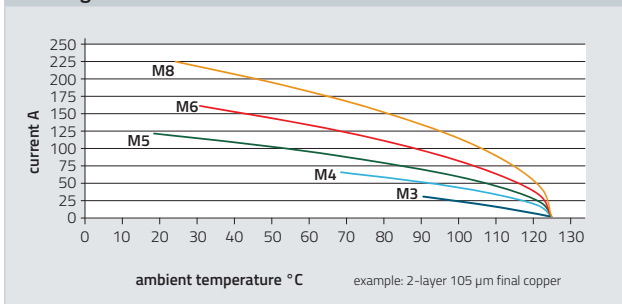
Depending on the system structure, the values of the derating curve shown may vary.

Qualification

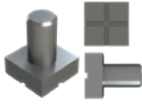
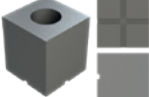
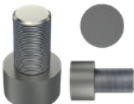
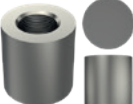
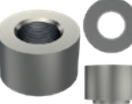

PowerOne SMD high current contacts have successfully passed the vibration test and the mechanical shock test according to ISO 16750-3 standard.

Vibration tests according to ISO 16750-3:2012 4.1.2.7 Random Test VII. Mechanical shock tests according to ISO 16750-3:2012 4.2.3 Severity 2.

Derating curve PowerOne SMD



Overview of PowerOne SMD standard products

Construction form						
Socket	Square	Square	Round	Round	Round	Round
Current carrying capacity at 20°C*	~ 90 – 330 A					
Current carrying capacity at 85°C*	~ 54 – 198 A					
Dimensions	M3 – M8					

* Recommended value for system design based on PCB limiting temperature of 125°C

All threads are also available in UNC.

For more information visit us at:
www.powerelement.com
 or call: +49 7940 9810-4444

Würth Elektronik ICS GmbH & Co. KG
 Intelligent Power & Control Systems
 Gewerbepark Waldzimmern · Würthstraße 1
 74676 Niedernhall · Germany
 +49 7940 9810-0 · Fax +49 7940 9810-1099
 ics@we-online.com · www.we-online.com/ics

We reserve the right to make technical changes and changes to the product range.
 No liability for printing errors and mistakes