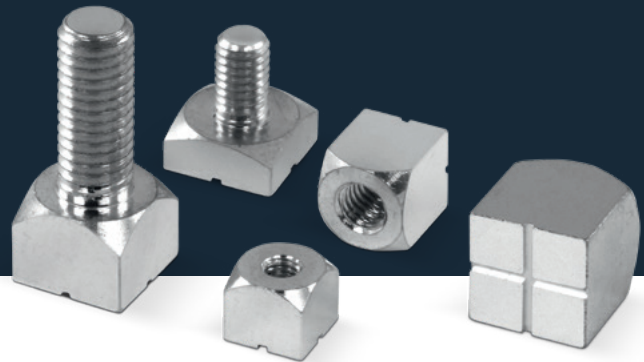


# POWERONE SMD

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

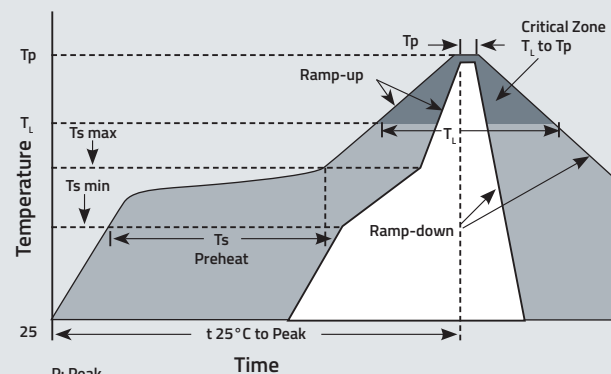
### Processing

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.

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



P: Peak  
L: Liquidus  
S: Soak

Quelle: JJSTD-020C; Fig. 5-1



REACH  
COMPLIANT

RoHS  
COMPLIANT



All products of the standard portfolio can also be offered individualised as customer-specific variants.

### 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.

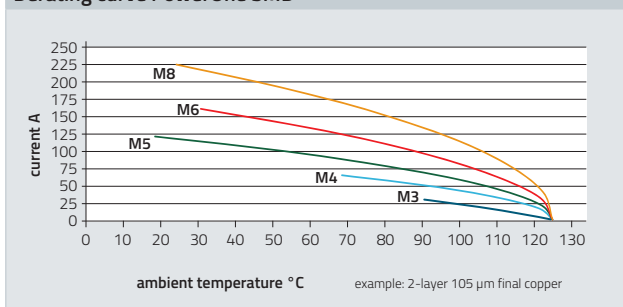
### Qualification

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

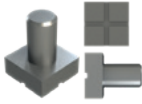
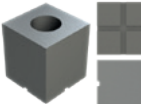
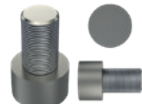
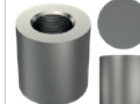
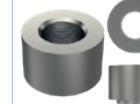

Vibration tests according to ISO 16750-3:2012 4.1.2.7 Random Test VII.

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					

\* referred to a limit temperature of 125 °C

All threads are also available in UNC.

For more information visit us at:  
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