

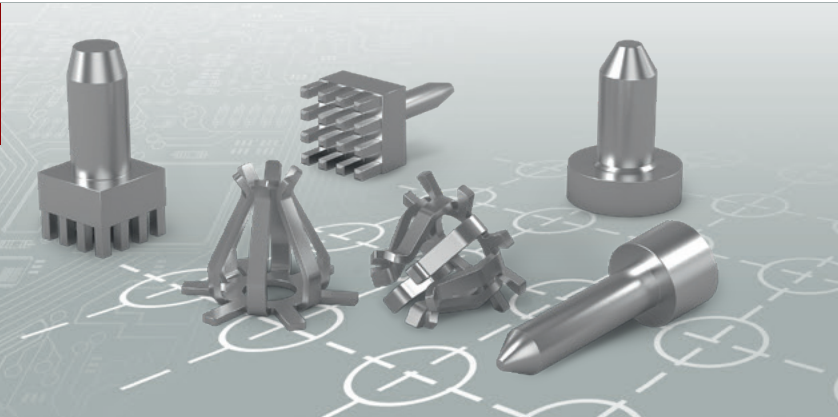


PowerBasket SMD

Pluggable Powerelements for SMT Assembly

Original
POWEELEMENT

150A Inline Processing
reliable established
high quality contact surface
SMT



PowerBasket Power Supply Terminals are pluggable high current contacts from Wurth Electronics ICS. With these you can reduce the assembly effort for your technicians or customers. Simply plug in - no screws - done! PowerBasket Powerelements are available for the following manufacturing processes:

- Press-fit technology
- SMT assembly

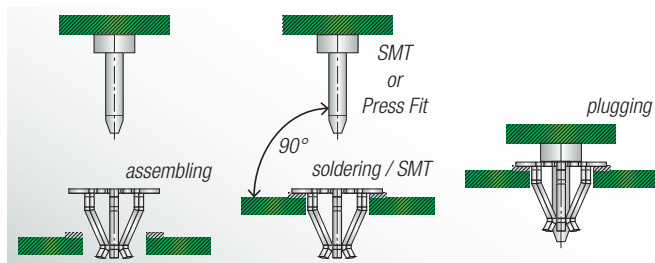
Our PowerBasket SMD Powerelements can be processed in typical SMT lines and are soldered in convection ovens or via a steam phase system. Due to the design of the contact blades, the insertion/extraction forces are significantly reduced compared to conventional systems. In combination with a position tolerance of up to 0.6 mm, several contacts can be used simultaneously. This opens up the opportunity for new applications, especially for board-to-board connections. A special contact alloy enables use at higher ambient temperatures with optimum current carrying capacity.

Application Possibilities

- Board-to-board
- Wire-to-board
- Use of multiple contacts simultaneously
- Maintenance-friendly connections (plugging instead of screwing)
- Multiple pluggable
- Extended operating temperature range
- Phase connection

Processing

PowerBasket SMD Powerelements are soldered onto the printed circuit board and fit simply into the process chain of a SMT line. Due to the heat absorption by the mass of the components, separate tests must be carried out to determine the parameters.



The delivery on reel in ESD blister packaging is optional with a Kapton-Sticker available.

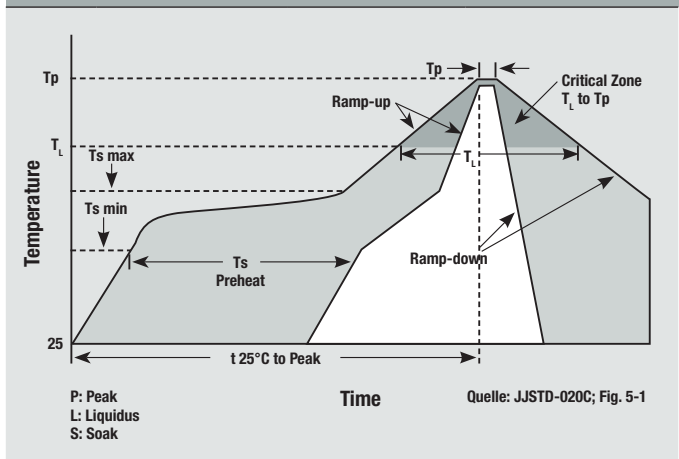
Technical Data

Current carrying capacity	See table overleaf
Material	CuNiSi
Surface	silver plated

Dimensions

Diameter solder pads	from 12 mm
Total height	from 9 mm
PCB thickness	from 1.0 mm
Diameter pin	3 mm and 6 mm

Würth Elektronik Test Arrangement - Soldering Profile



Compliant





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Circuit Board Design

The printed circuit boards must be designed in accordance with IPC A 600 in the respective valid edition. Information on the footprints is also available.

Current Carrying Capacity

The current carrying capacity must always be considered in the context of the overall system. The contact resistance is only 250 - 350 μOhm . Our measurements have shown that the limiting factor is usually found in the layout of the printed circuit board or the connection of external supply lines.

Reference dimension values can be found in the table below.

Qualification

PowerBasket High Current Contacts have successfully passed the vibration test according to the ISO 16750-3 standard. Vibration test according to ISO 16750-3:2012 4.1.2.7.2 Random Test VII.

Our PowerBasket SMD High Current Contacts are in preparation for qualification according to LV214.

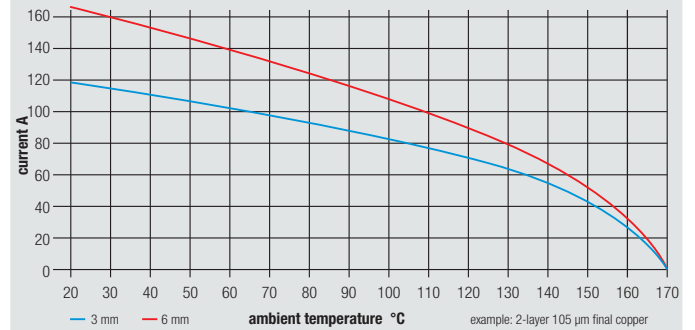
Recommendation Specifications

IPC A 600	Acceptability of Printed Boards
IPC TM 650	Acceptability of Assemblies (Test Methods)



Insertion Forces

Number of plugging cycles	PowerBasket 3 mm	PowerBasket 6 mm
1	3 N	35 N
25	6 N	61 N





Derating curve PowerBasket SMD (preliminary)



Product Overview PowerBasket SMD

		
Connection diameter	3 mm	6 mm
Construction form	Bush through hole vertical	Bush through hole vertical
Part-No.	99763	99600
Current carrying capacity at 20 °C	~ 120 A	~ 164 A
Current carrying capacity at 85 °C	~ 92 A	~ 121 A
Current carrying capacity at 125 °C	~ 68 A	~ 85 A
Current carrying capacity at 150 °C	~ 43 A	~ 55 A

Product Overview Contact Pins

				
Connection diameter	3 mm	3 mm	6 mm	6 mm
Construction form	pin vertical	pin vertical	pin vertical	pin vertical
Socket height	15 mm	15 mm	15 mm	15 mm
Part-No.	900167	900172	900168	900146

For more information visit us at:
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 or call our Hotline: +1 937-415-7700