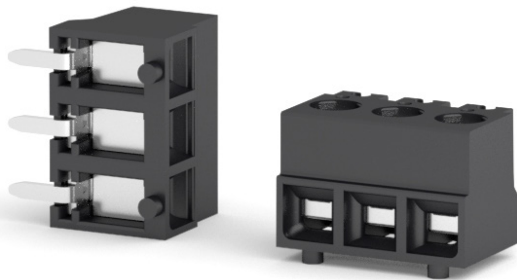
MBBD

Full Lean Technology



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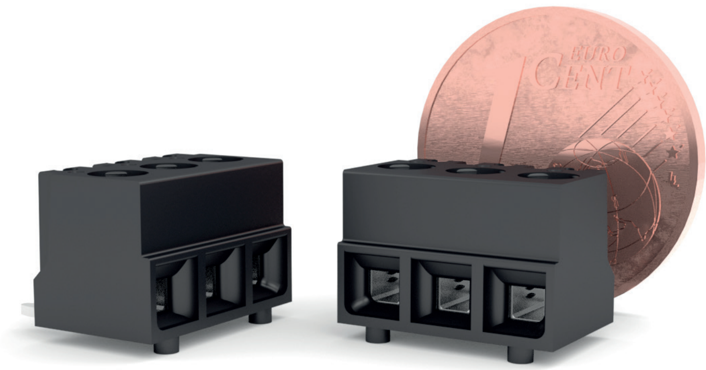
ELECTRONIC CONNECTORS

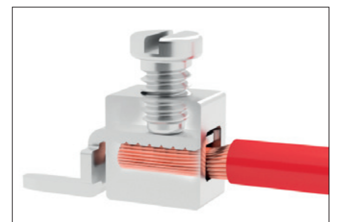
by the law

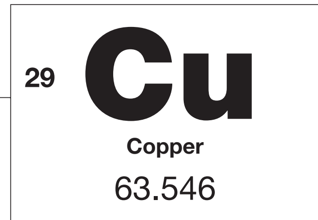
Why choose it

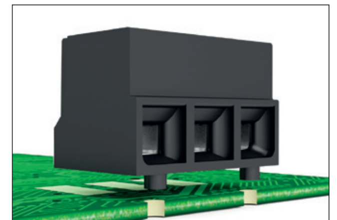


This new **SMD** (Surface Mounted Device) series, MBBD, product has been designed to offer our customers **small and smart solutions** when the most important requirement **is compactness and miniaturization**
Height = **7,5 mm**
Pitch = **3,81 mm**
Voltage = **300 V**
Wire section = **0,75 mm²/18 AWG**
Current = **7 A**

Application fields:
Its height so small and the fact that it can be soldered superficially allow its use in all BUILDING AUTOMATION devices like: heating, ventilation and air conditioning control devices, lighting control devices, video door entry panels, lift control panels, entrance panels, alarm devices where the aesthetics and design of the device are important and often it is required to reduce the overall dimensions of the device itself.



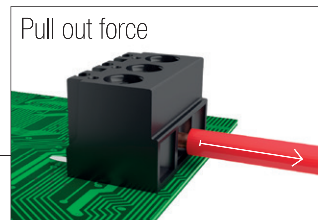


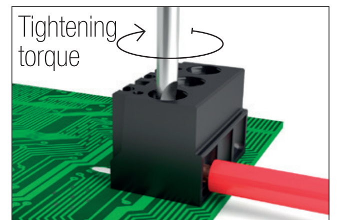


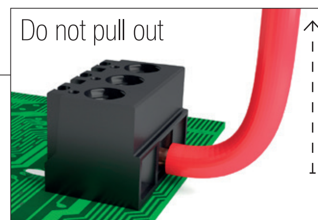
Features:
- UL certified and delivered with the clamp closed
- made exclusively in copper alloy
- designed according to rising clamp technology
- fixing and positioning pegs with double function: to maintain the stability of the product during the reflow soldering and to avoid mistake during the assembly process since they define the position of the product.

Packaging and PCB assembly
- made by plastic material rated **MSL1** (**M**oisture **S**ensitivity **L**evel **1**):
- it is insensitive to moisture and no moisture bag or exsiccation before the reflow oven are needed
- packed in tape on reel and meant to be automatically assembled onto the PCB via pick and place system and then soldered in the reflow oven.

Without pad







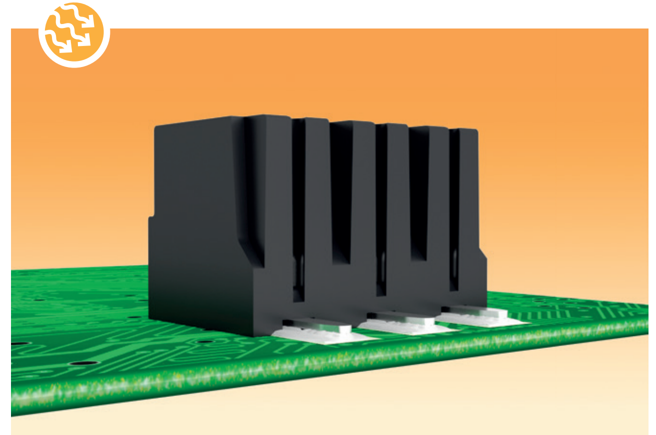
Mechanical performance
- Pull out resistance > **20 Kg**
- Suggested tightening tourque **0,2 Nm**
- Do not pull out the wire upwards

How to use it

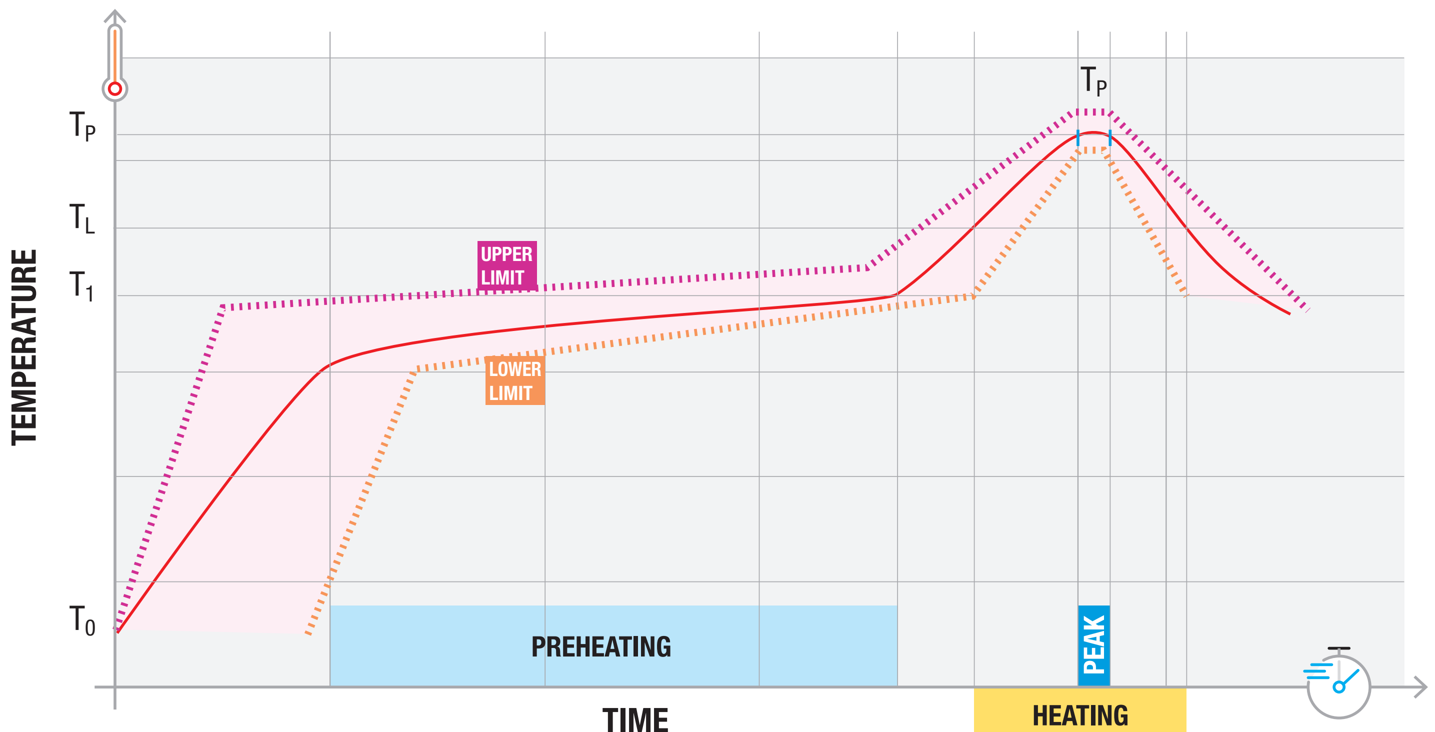
Tin paste:
- good viscosity
- formed by compact microspheres so as to ensure a high seal of the paste itself and of the components that will be assembled
- must have a minimum content of 3% Silver (Ag), 0.51 ÷ 1% Copper (Cu) and contain the right quality and quantity of flux in order that the paste remains in the desired position without dripping
- EMCO 502 is an example of paste preferred by assemblers
- thickness of the stencil used is 200 µm

Tin paste thickness 200 µm

Reflow soldering parameters:
SMD products are manufactured with a resistant to high temperature insulating material and therefore they can be soldered by all lead-free reflow processes with a peak temperature till 260 °C / 500 °F, according to the related profile.



REFLOW SOLDERING	Lead-free tin soldering
PREHEATING T_0	25 °C (77 °F)
T_1	from 150 °C (302 °F) to 190 °C (374°F)
Time	from 150 s to 180 s
Gradient	1,5 °C/s (34 °F/s)
PEAK T_P	up to 260 °C (500 °F)
Time	from 10 s to 30 s
HEATING T_L	above 217 °C (422 °F)
Time	from 60 s to 150 s



Ramp-up rate (T_L to T_P) 3°C/second max.

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