## Minimum Through-Hole Solder Joint Requirements • Class 3



Shown below are the minimum acceptable conditions for a Class 3 Plated-Through Hole Solder Joint. All of the illustrations show the same solder connection from three different views: top, barrel (cutaway), and bottom.

Any Class 3 solder connection failing to meet these minimum requirements should be considered unacceptable.

References: IPC-A-610D and IPC J-STD-001D



# CUTAWAY VIEW (BARREL)

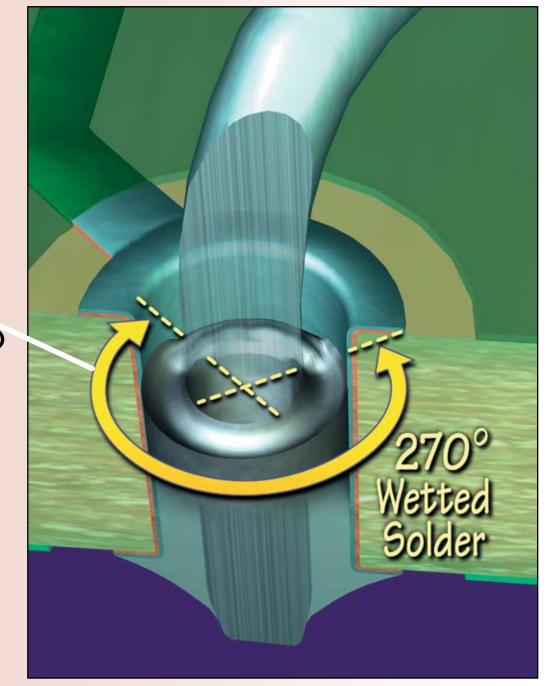
#### Vertical fill of barrel = 75%

Solde, must fill at least 75%, or 3/4 is a height of the hole.

#### Wetting of component side lead & barrel = 270°

A properly wetted solder fillet must circle at least 270° (or 3/4) of the way around the lead and barrel.

The remaining 90° of the solder connection may exhibit non-wetting, but it must *fill* the hole to the same height (75%) as the properly wetted solder.



#### Wetting of solder side lead & barrel = 330°

The wetting on lead and barrel must be at least 330° (approx. 90%).

### Wetting of solder side land = 270°

A properly wetted fillet must extend at least 270° (or 3/4) of the way around the land on the bottom or solder side of



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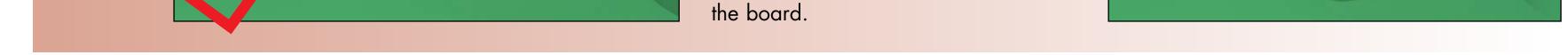
Nonwetting

Wetting

Land

rrel

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