

# Axiom Electronics PCBA Design for Manufacturability Guidelines

Section: 10.14

Revision: B

Revision Date: 12/06/18

DFM Subject: Lead to Hole Ratio Recommendations for Through-Hole Components

## DFM Requirement:

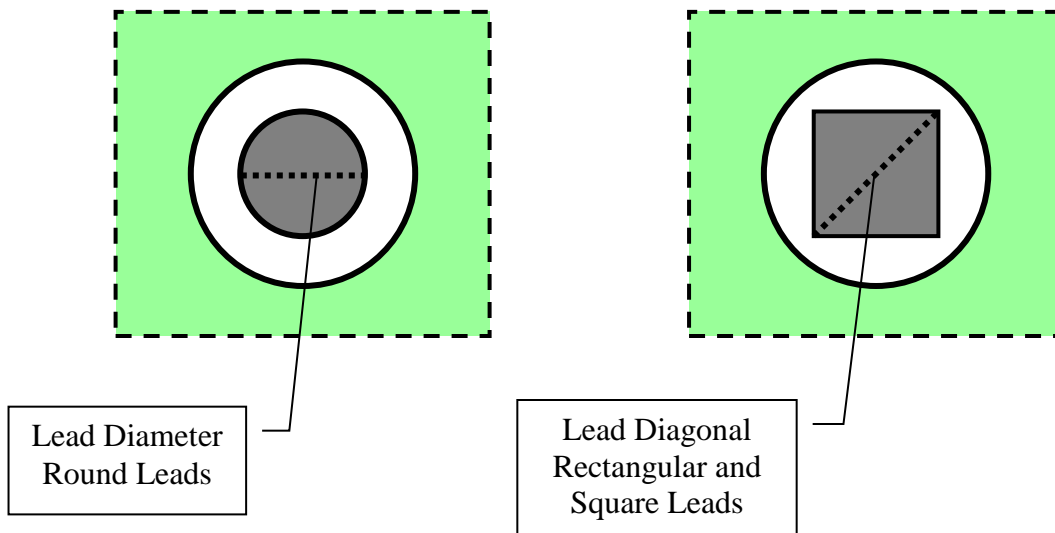
### Calculating Lead to Hole Ratio:

- Round leads, PCB thickness  $\geq 2\text{mm}$  (.079"), add 0.50mm (0.020") to the lead diameter and round to the nearest drill size within  $\pm 0.125\text{mm}$  (0.005").
- Round leads, PCB thickness  $< 2\text{mm}$  (.079"), add 0.40mm (0.016") to the lead diameter and round to the nearest drill size within  $\pm 0.125\text{mm}$  (0.005").
- Square and rectangular leads, all PCB thicknesses, add 0.30mm (0.012") to the lead diagonal and round to the nearest drill size within  $\pm 0.125\text{mm}$  (0.005").
- For the lead diameter or diagonal always use the maximum dimension.
- Reference IPC-2222 Sectional Design Standard for Rigid Organic Printed Boards.

## DFM Impact:

Solder flow and hole filling during Selective Soldering improves significantly when the proper Lead to Hole Ratio is used.

## DFM Details: Calculating Lead to Hole Ratio



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