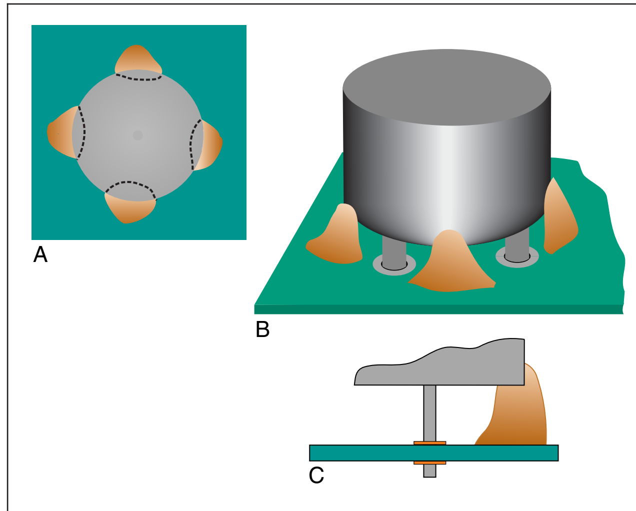
7.2.2.2 Component Securing – Adhesive Bonding – Elevated ~~Radial-Leaded~~ Components

This applies in particular to encapsulated or potted transformers and/or coils that are not mounted flush to the board.



~~Figure 7-62~~

Acceptable – Class 1,2,3

- Bonding requirements should be specified in engineering documents, but as a minimum, components are bonded to mounting surface in at least ~~4~~ places evenly spaced around component when no mechanical support is used, see Figure 7-62-A.
- At least 20% of the total periphery of the component is bonded, see Figure 7-~~62-B.~~
- Bonding material firmly adheres to both the bottom and sides of the component and to the printed wiring board, see Figure 7-~~62-C.~~
- Adhesive material does not interfere with formation of required solder connection.

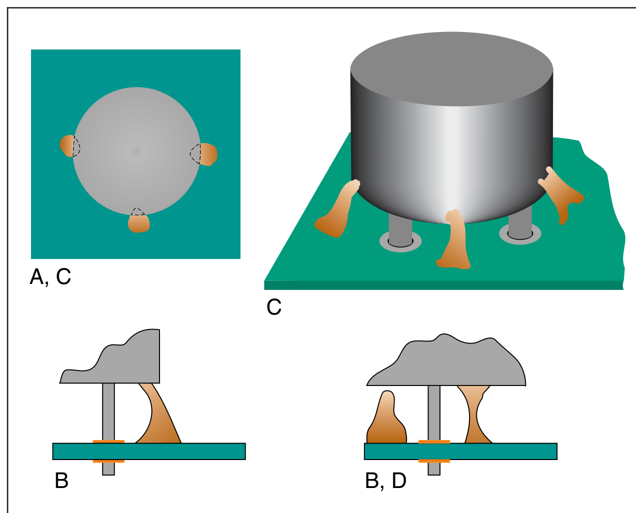


Figure 7-~~63~~

Defect – Class 1,2,3

- Bonding requirements are less than ~~specified.~~
- Any bonding spots failing to wet and show evidence of adhesion to both the bottom and side of the component and the mounting surface, see Figure 7-~~63-B.~~
- Less than 20% of the total periphery of the component is bonded, see Figure 7-~~63-C.~~
- The bonding material forms too thin a column to provide good support, see Figure 7-~~63-~~D.
- Adhesive material interferes with formation of required solder connection.

7.2.2.2 Component Securing – Adhesive Bonding – Elevated Components

This applies in particular to encapsulated or potted transformers and/or coils that are not mounted flush to the board.

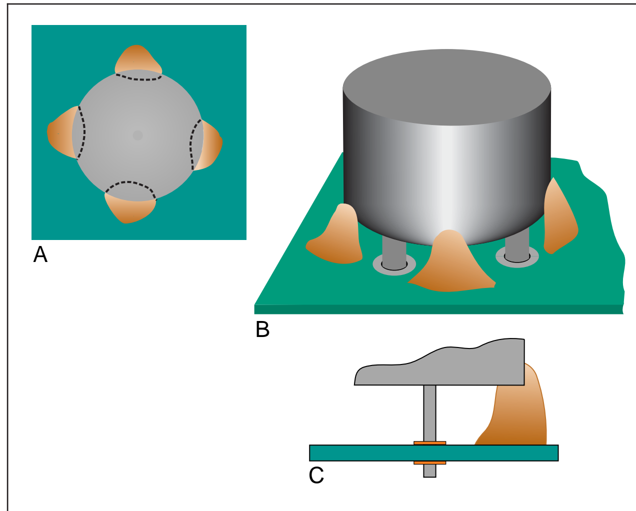


Figure 7-63

Acceptable – Class 1,2,3

- Bonding requirements should be specified in engineering documents, but as a minimum, components are bonded to mounting surface in at least four places evenly spaced around component when no mechanical support is used, see Figure 7-63-A.
- At least 20% of the total periphery of the component is bonded, see Figure 7-63-B.
- Bonding material firmly adheres to both the bottom and sides of the component and to the printed wiring board, see Figure 7-63-C.
- Adhesive material does not interfere with formation of required solder connection.

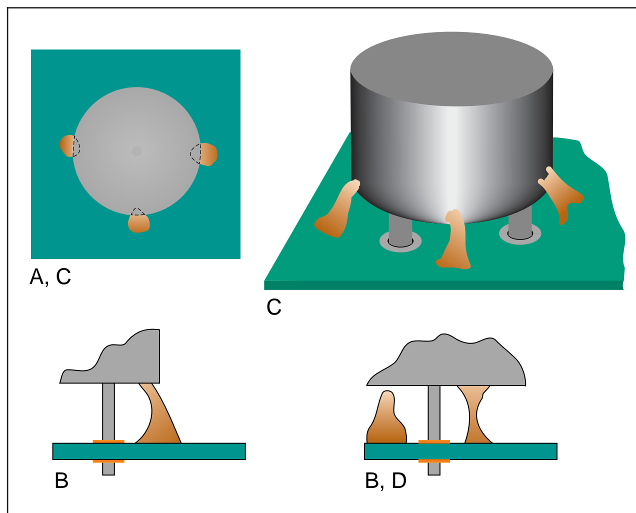


Figure 7-64

Defect – Class 1,2,3

- Bonding requirements are less than the specified requirements.
- Any bonding spots failing to wet and show evidence of adhesion to both the bottom and side of the component and the mounting surface, see Figure 7-64-B.
- Less than 20% of the total periphery of the component is bonded, see Figure 7-64-C.
- The bonding material forms too thin a column to provide good support, see Figure 7-64-D.
- Adhesive material interferes with formation of required solder connection.

7.2.3 Component Securing – Other Devices

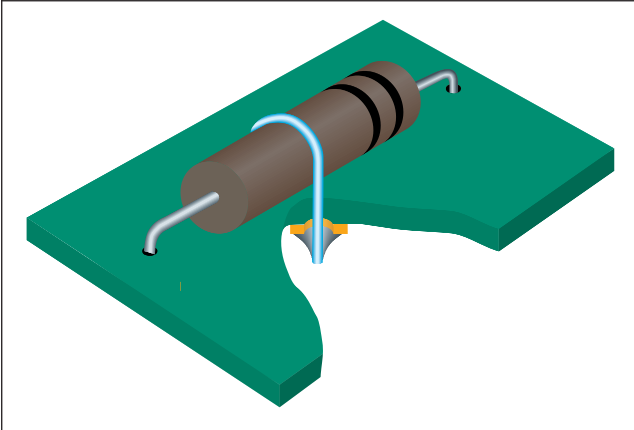


Figure 7-~~64~~

Acceptable – Class 1,2,3

- Component is held firmly against the mounting surface.
- There is no damage to the component body or insulation from the securing device.
- Conductive securing device does not violate minimum electrical clearance.

~~**Defect – Class 1,2,3**~~

- ~~Component body damaged from securing device.~~
- ~~Conductive securing device violates minimum electrical clearance.~~

7.2.3 Component Securing – Other Devices

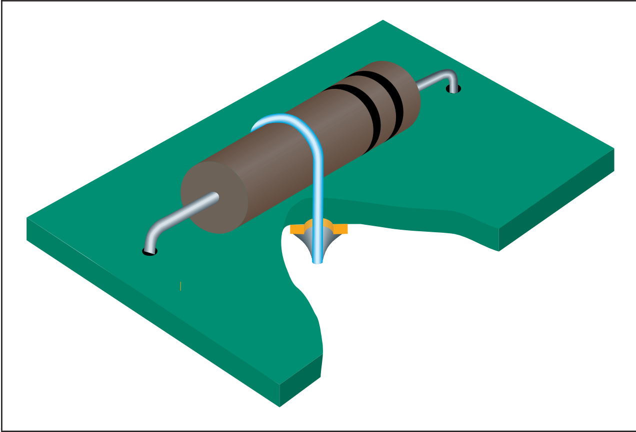


Figure 7-65

Acceptable – Class 1,2,3

- Component is held firmly against the mounting surface.
- There is no damage to the component body or insulation from the securing device.
- Conductive securing device does not violate minimum electrical clearance.

7.3 Supported Holes

7.3.1 Supported Holes – Axial Leaded – Horizontal

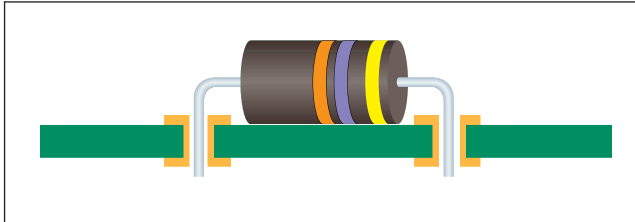


Figure 7-65

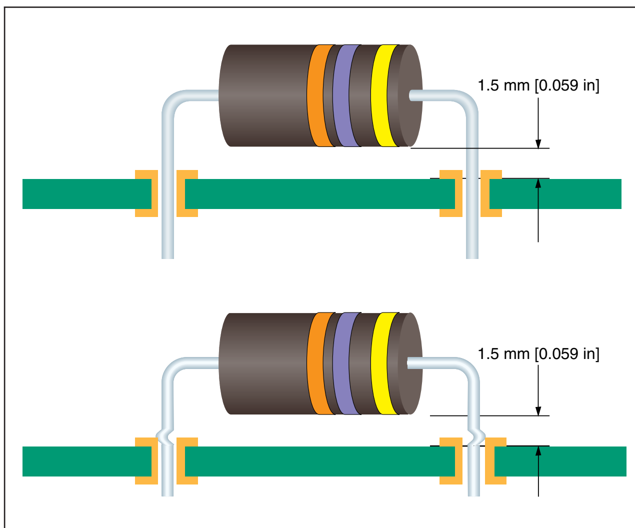


Figure 7-66

Target – Class 1,2,3

- The entire body length of the component is in contact with the board surface.
- Components required to be mounted off the board are at least 1.5 mm [0.06 in] from the board surface; e.g., high heat dissipating.

7.3 Supported Holes

7.3.1 Supported Holes – Axial Leaded – Horizontal

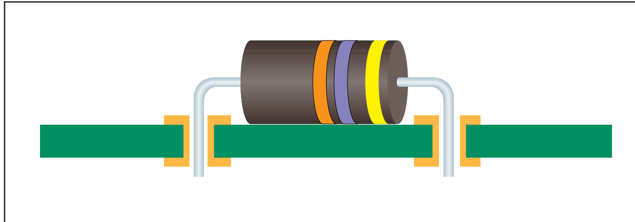


Figure 7-66

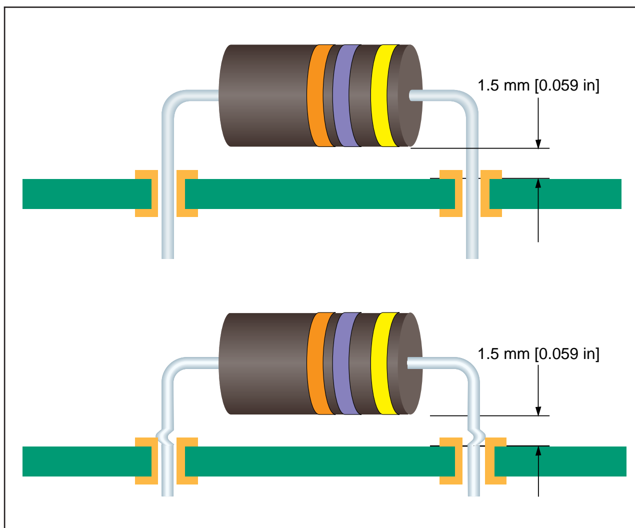


Figure 7-67

Target – Class 1,2,3

- The entire body length of the component is in contact with the board surface.
- Components required to be mounted off the board are at least 1.5 mm [0.06 in] from the board surface, e.g., high heat dissipating.