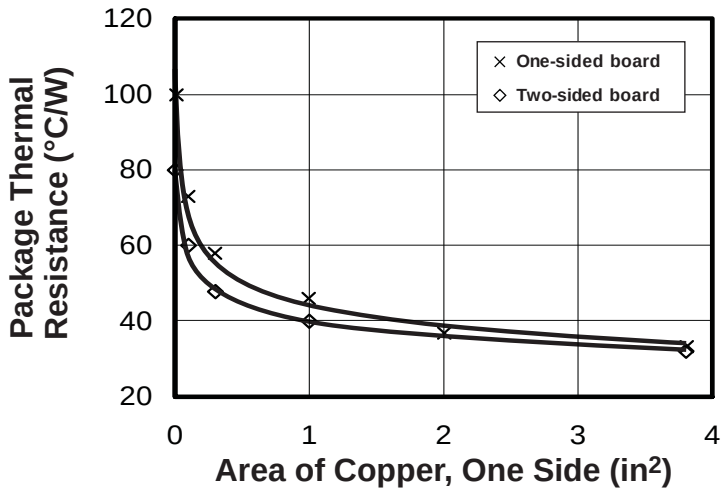
Effect of PWB Copper Area on Thermal Performance

of 24-Lead TSSOP (Suffix LP) Package

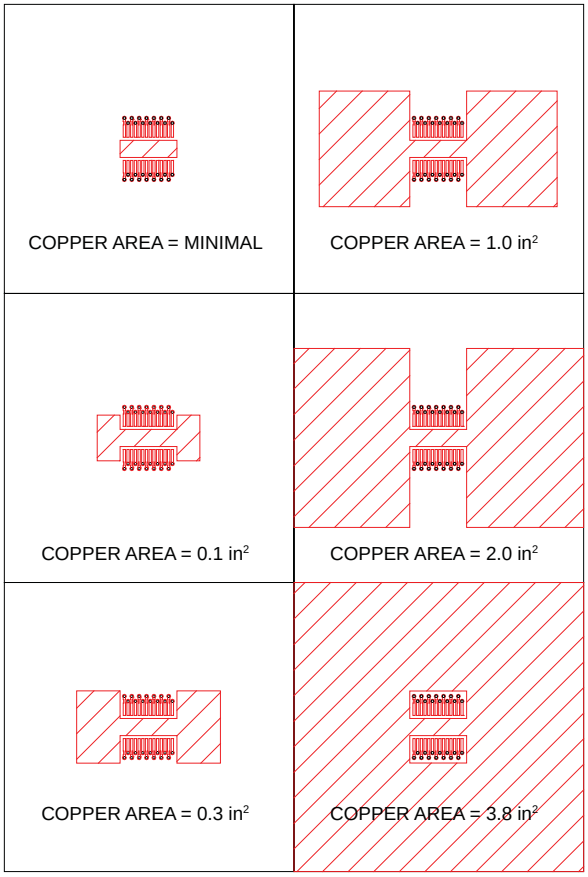
Thermal Resistance ($R_{\theta JA}$) versus Copper Area on Printed Wire Board (PWB)



- All copper is 2 oz. thickness
- Area of Copper refers to individual test locations on PWB

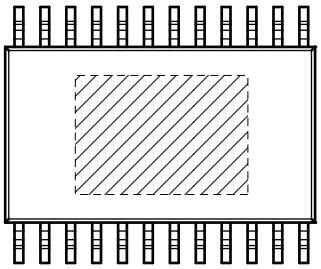
Variable Copper Area Test Board

Red hatched areas are copper on the surface of the PWB



Package Exposed Pad Must Be Connected to Copper Area on Board

The TSSOP package has an exposed pad on the bottom as shown by the black hatched area. This pad should be attached to the additional copper area on the PWB.



Using a 2-Layer PWB

For the 2-layer board (copper on 2 sides), the copper area on the bottom is identical to the area on the top. The top and bottom layers are thermally connected using vias placed under the exposed pad. See JEDEC Standard JESD51-5 for recommended via geometry (www.jedec.org).

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