

THEORETICAL ANALYSIS

Reference : Handbook of Electronic Packaging
- Harper (McGraw Hill)

The above reference contains a graph entitled 'estimated surface temperature rise for typical closed electronic equipment cases with no external cooling provisions'.

The graph gives a surface temperature rise valid for any closed equipment in any free convection and radiation situation.

From considerations of the power dissipation inside the cabinet and the surface area of the cabinet, the graph gives a temperature rise which is the difference between the cabinet surface and the external ambient temperature. The same value can be used for the internal ambient over the cabinet surface temperature.

