

POWER DISSIPATION (PLP(DFN)1616-6)

This specification is at mounted on board. Power Dissipation (P_D) depends on conditions of mounting on board.

This specification is based on the measurement at the condition below:

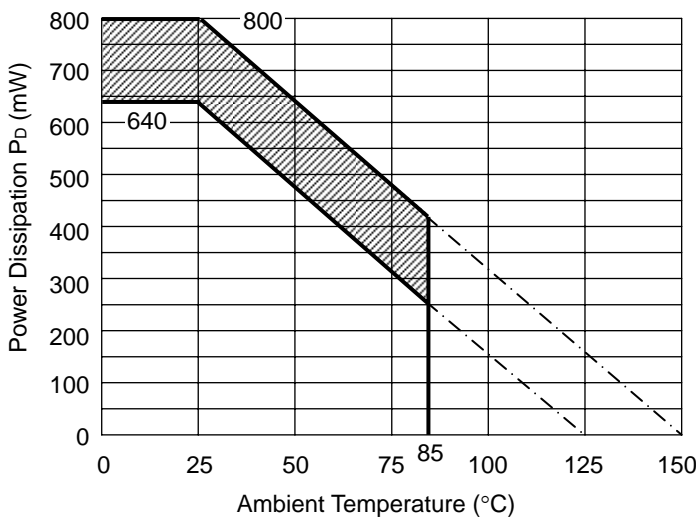
(DFN(PLP)1616-6 is a reference value calculated from the DFN(PLP)1820-6 package.)

Measurement Conditions

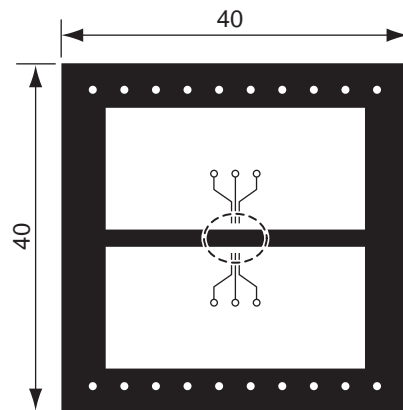
| | |
|------------------|--------------------------------------------------|
| | Standard Land Pattern |
| Environment | Mounting on Board (Wind velocity=0m/s) |
| Board Material | Glass cloth epoxy plastic (Double sided) |
| Board Dimensions | 40mm × 40mm × 1.6mm |
| Copper Ratio | Top side : Approx. 50% , Back side : Approx. 50% |
| Through-holes | φ0.54mm × 26pcs |

Measurement Results (T_{opt}=25°C, T_{jmax}=125°C)

| | |
|--------------------|---------------------------------------------------------------------------|
| | Standard Land Pattern |
| Power Dissipation | 640mW |
| Thermal Resistance | $\theta_{ja}=(125-25^{\circ}\text{C})/0.64\text{W}=156^{\circ}\text{C/W}$ |
| Thermal Resistance | $\theta_{jc}=23^{\circ}\text{C/W}$ |



Power Dissipation



Measurement Board Pattern

○ IC Mount Area (Unit: mm)

The above graph shows the Power Dissipation of the package based on T_{jmax}=125°C and T_{jmax}=150°C.

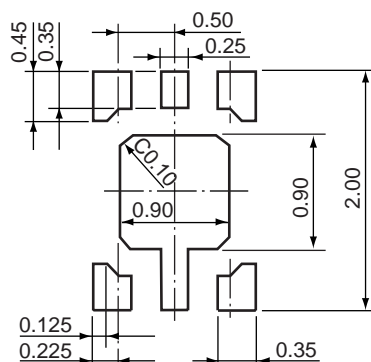
Operating the IC in the shaded area in the graph might have an influence it's lifetime.

Operating time must be within the time limit described in the table below, in case of operating in the shaded area.

| Product Name | Operating time | Estimated years* |
|--------------|----------------|------------------|
| R1163K | 13,000hrs | 9years |

*The volume is calculated on the supposition that operating four hours/day.

RECOMMENDED LAND PATTERN



(Unit: mm)