

Appendix – Definition of Ψ_{JT}

- According to JEDEC JESD51-2A, Ψ_{JT} is the thermal characterization parameter to report the difference between junction temperature and the temperature at the top center of the outside surface of the component package, divided by the power applied to the component. When Greek letters are not available, Ψ_{JT} is written Psi-JT.

$$\Psi_{JT} = (T_{JSS} - T_{TSS})/PH$$

- T_{JSS} = the junction temperature at steady-state.
 - T_{TSS} = the package (top surface) temperature, at steady-state, measured by the thermocouple, infrared sensor, or fluoroptic sensor.
 - PH = power dissipation that produced change in junction temperature (W)
- The use of Ψ_{JT} should not be confused with θ_{JC} which is the thermal resistance from the device junction to the external surface of the package held at a constant temperature.