

## **CuDia slug size variation analysis on heat dissipation of high power LED**

### **Abstract**

The current advancement of LED has prompt thermal challenges from the packaging point of view. The reliability of the LED is significantly influenced by each of its packaging component. This paper presents the investigation of heat slug size effect on the junction temperature and stress of single chip LED through simulation method. Ansys version 11 was utilized and the analysis was done with copper diamond rectangular heat slug under natural convection condition at ambient temperature of 25 °C. The simulation results indicated that junction temperature and the stress of the single chip LED is influenced by the size of heat slug.

**Keywords;** Ansys, CuDia Heat Slug, High Power LED, Junction Temperature