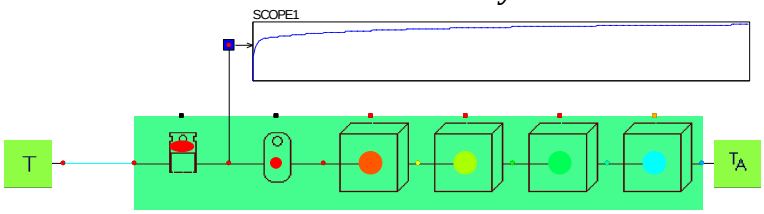
Caspoc

Fast and Easy Power Electronics and Electrical Drives Simulation

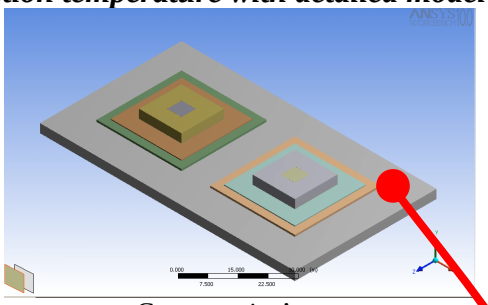
Heat Sink modeling

Estimate the efficiency and heating in your power electronics design with detailed heat sink models. Predict accurately the thermal behavior of your design with either basic heat sink models or with detailed thermal models from Ansys

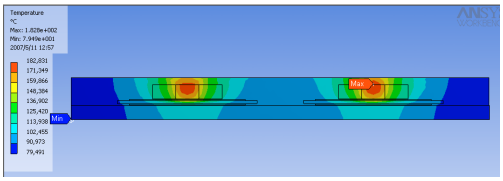
TO220 with heat sink and isolation layers



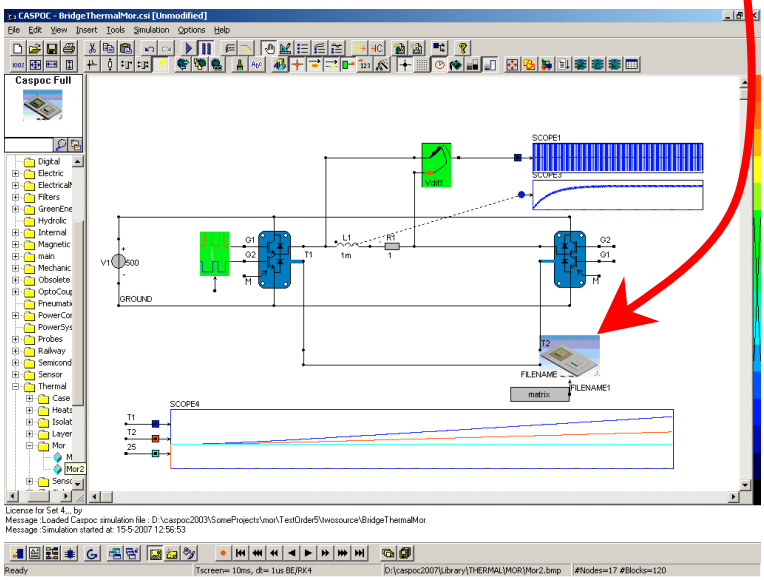
IGBT Junction temperature with detailed model



Geometry in Ansys



Static Temperature in Ansys and Model Identification



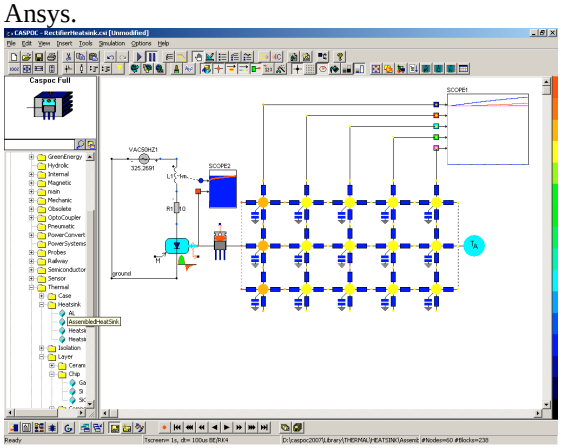
Single phase inverter with IGBT and thermal model from Ansys

Features:

- Heat Sink models directly coupled to semiconductor models
- Thermal material properties predefined
- Ready to use heat sink models
- Thermal models from Ansys directly imported into Caspoc

Thermal models

Thermal models are required to accurately predict the losses of semiconductors. The losses in the semiconductors are dependent on the junction temperature, which is in turn a function of the power losses from the semiconductor itself, and the surrounding semiconductors.
In Caspoc you can use the ready to use models for heat sinks or you can use the detailed models from Ansys.



Summarizing,
Thermal Models,
predefined or custom
quick and easy.