

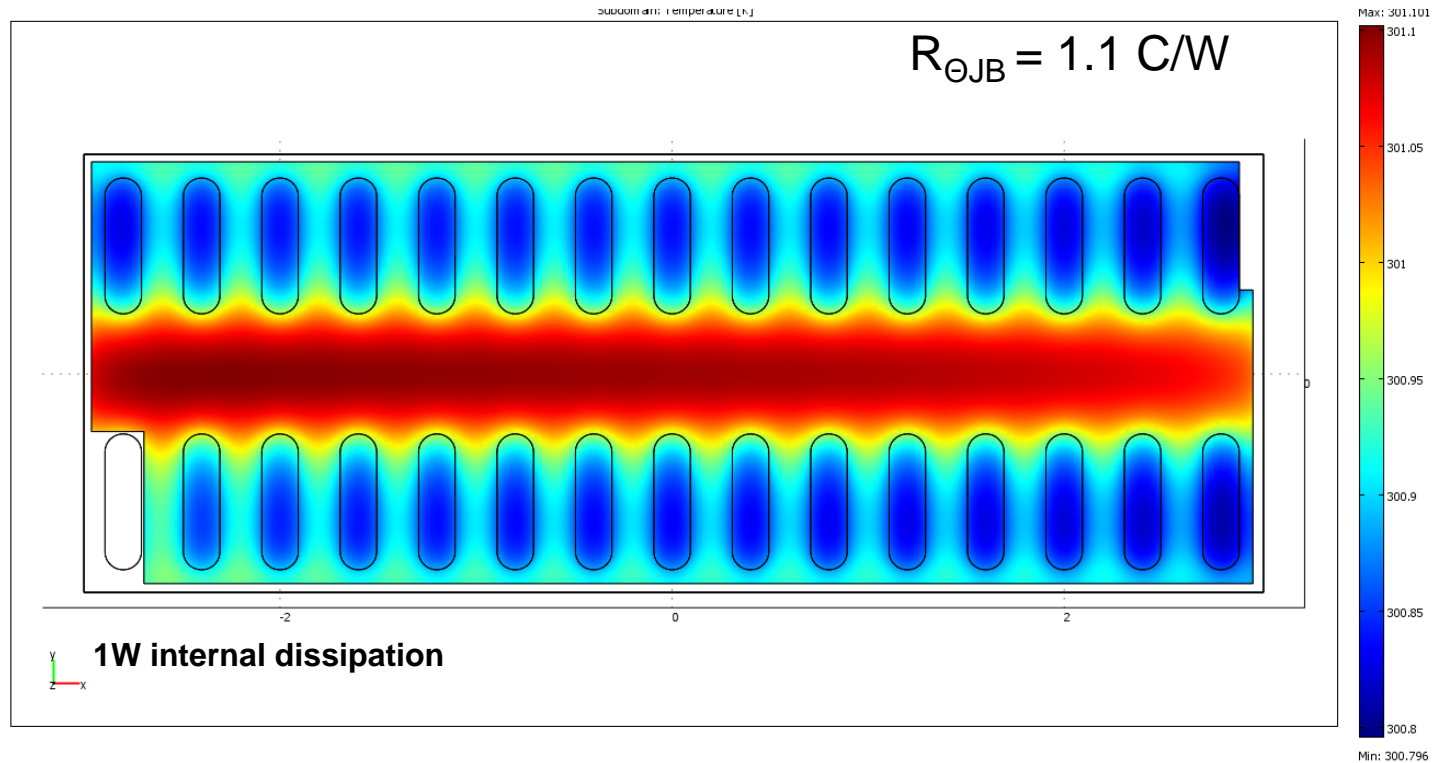
EPC2023 SPICE Thermal Model

$R_{\theta JB}$ & $R_{\theta JC}$

$R_{\Theta JB}$ Simulation

Finite Element Simulation of Junction Temperature

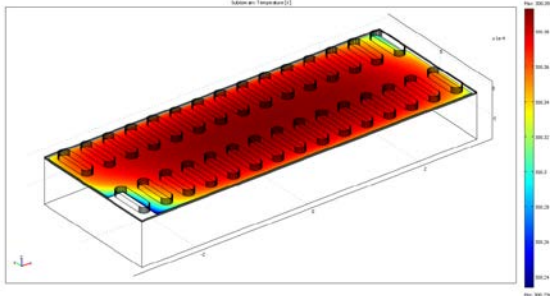
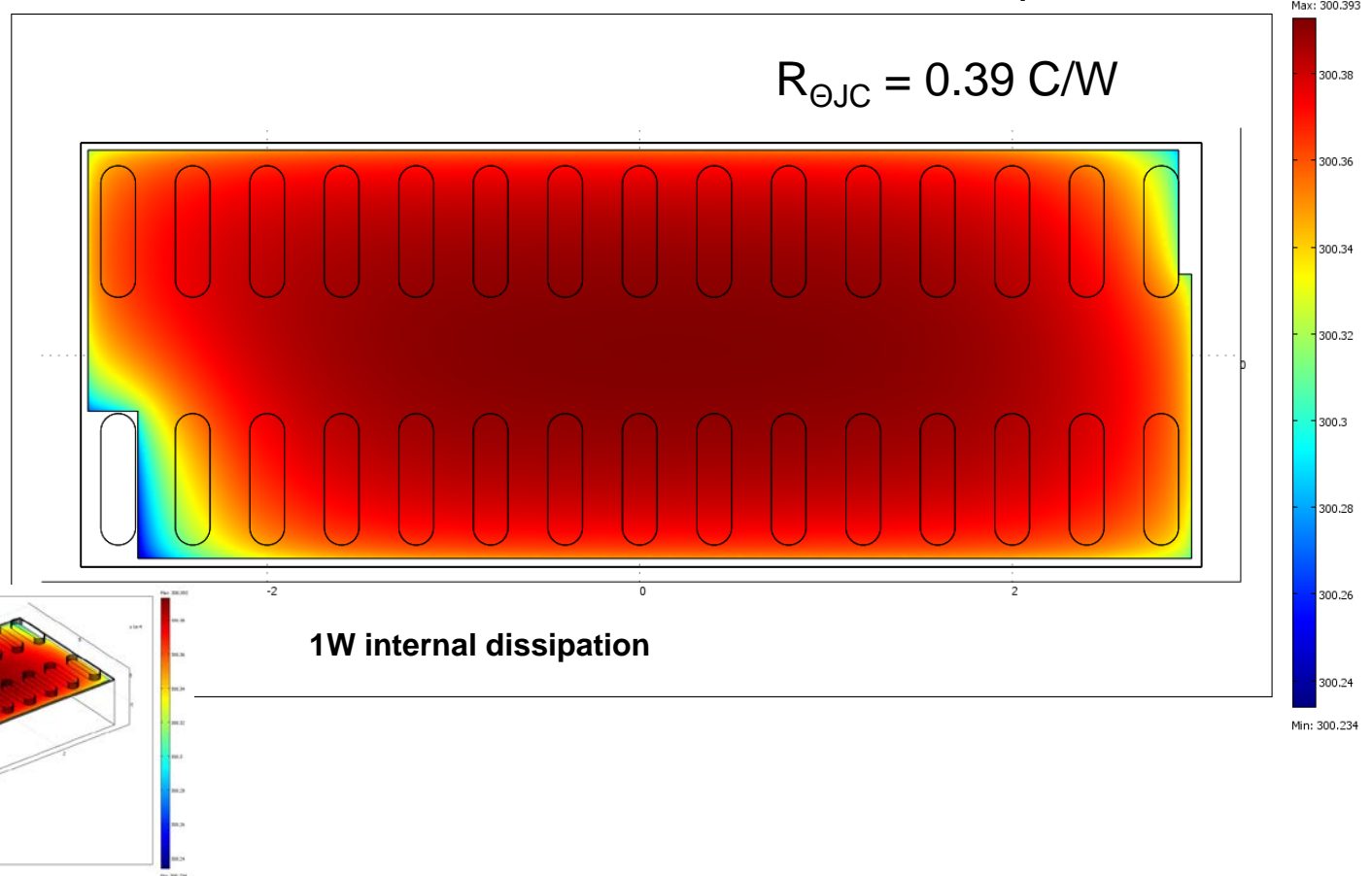
- Board side of solder bumps maintained at 300 K
- Backside silicon thermally floating
- No radiation or heat transfer to air



$R_{\Theta JC}$ Simulation

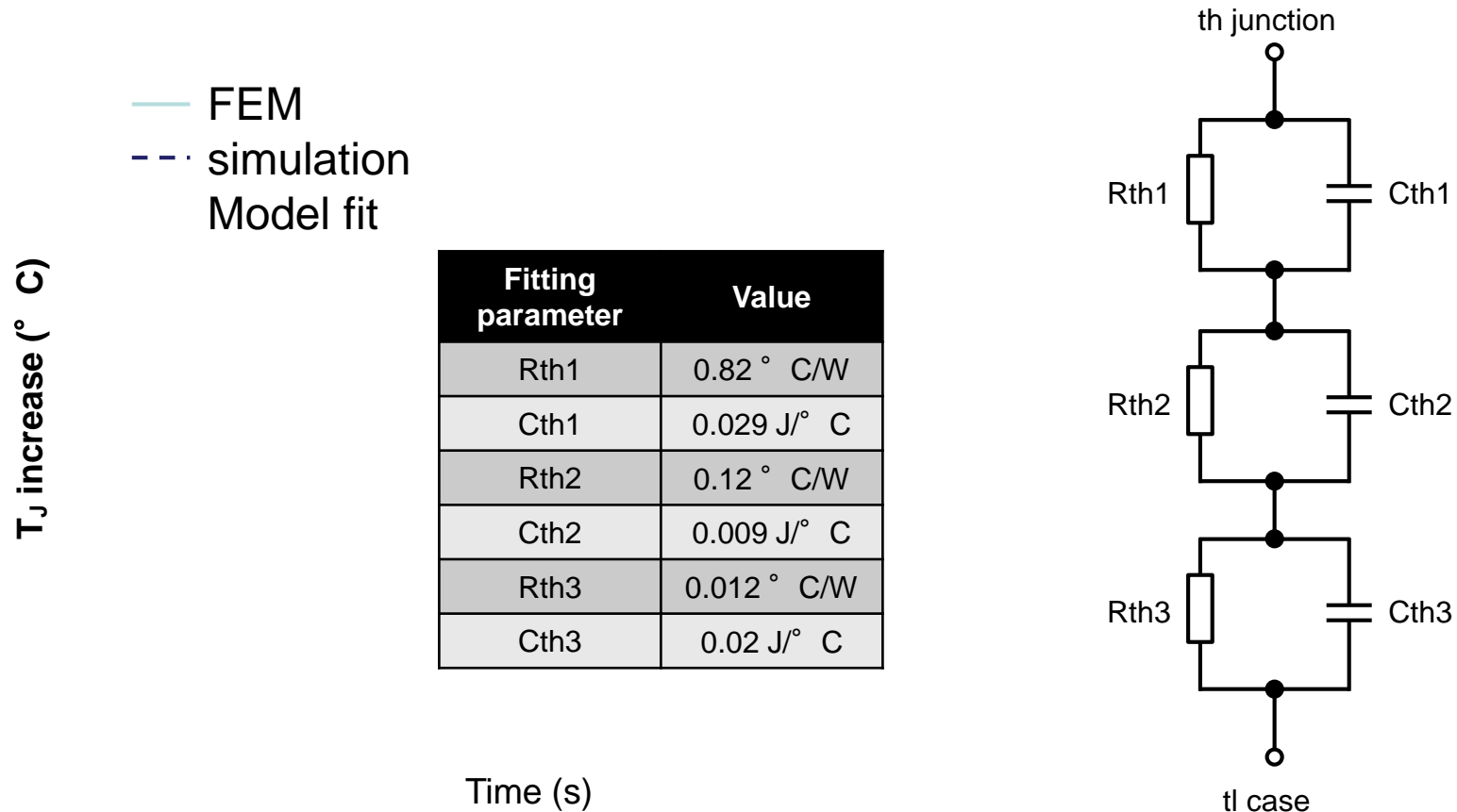
- Backside silicon maintained at 300 K
- Board side of solder bumps thermally floating
- No radiation or heat transfer to air

Finite Element Simulation of Junction Temperature



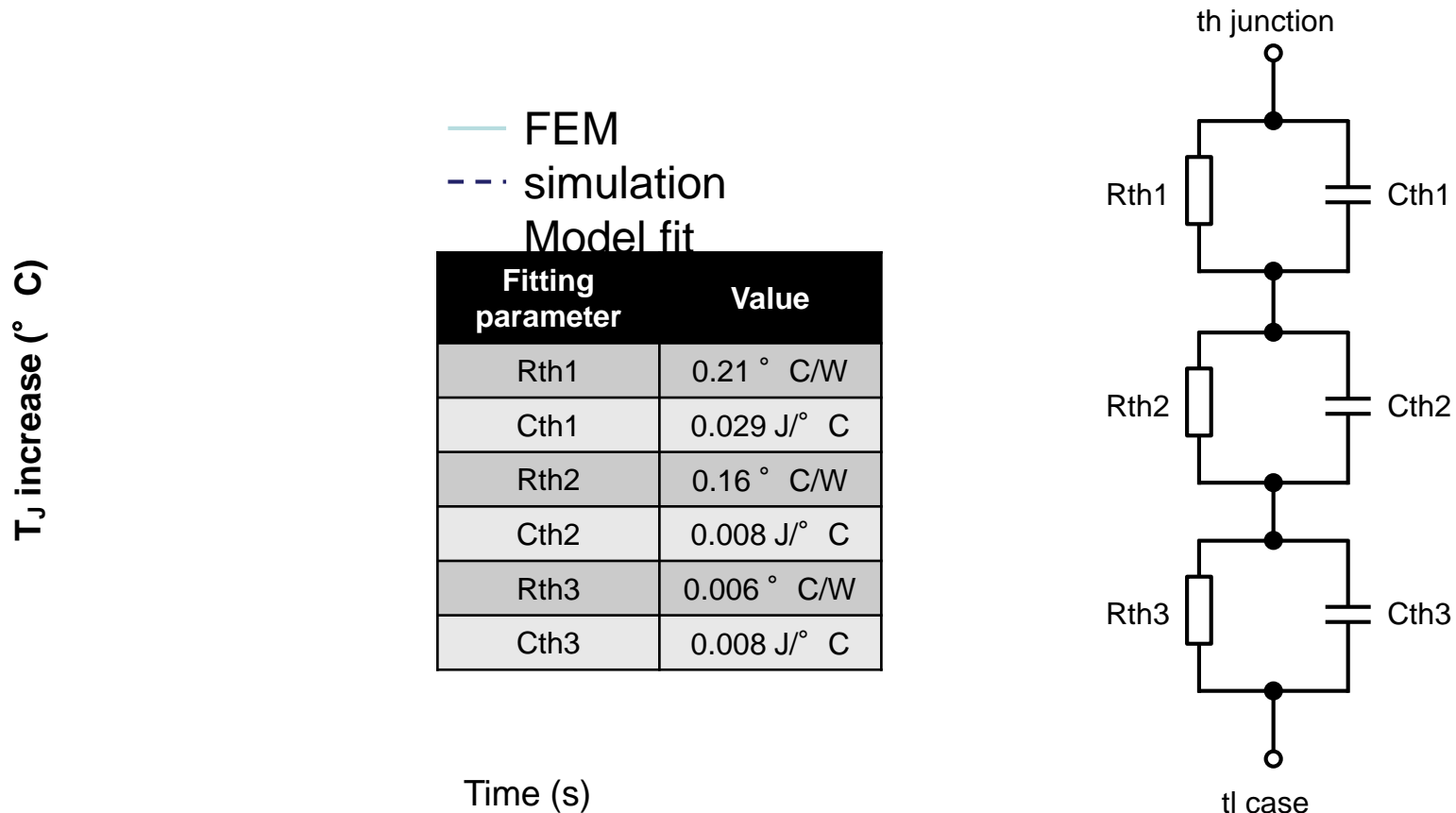
Transient $R_{\Theta JB}$

Transient junction temperature as a function of time under 1W load



Transient $R_{\Theta JC}$

Transient junction temperature as a function of time under 1W load





*The end of the road
for silicon.....*

*is the beginning of
the eGaN FET
journey!*

