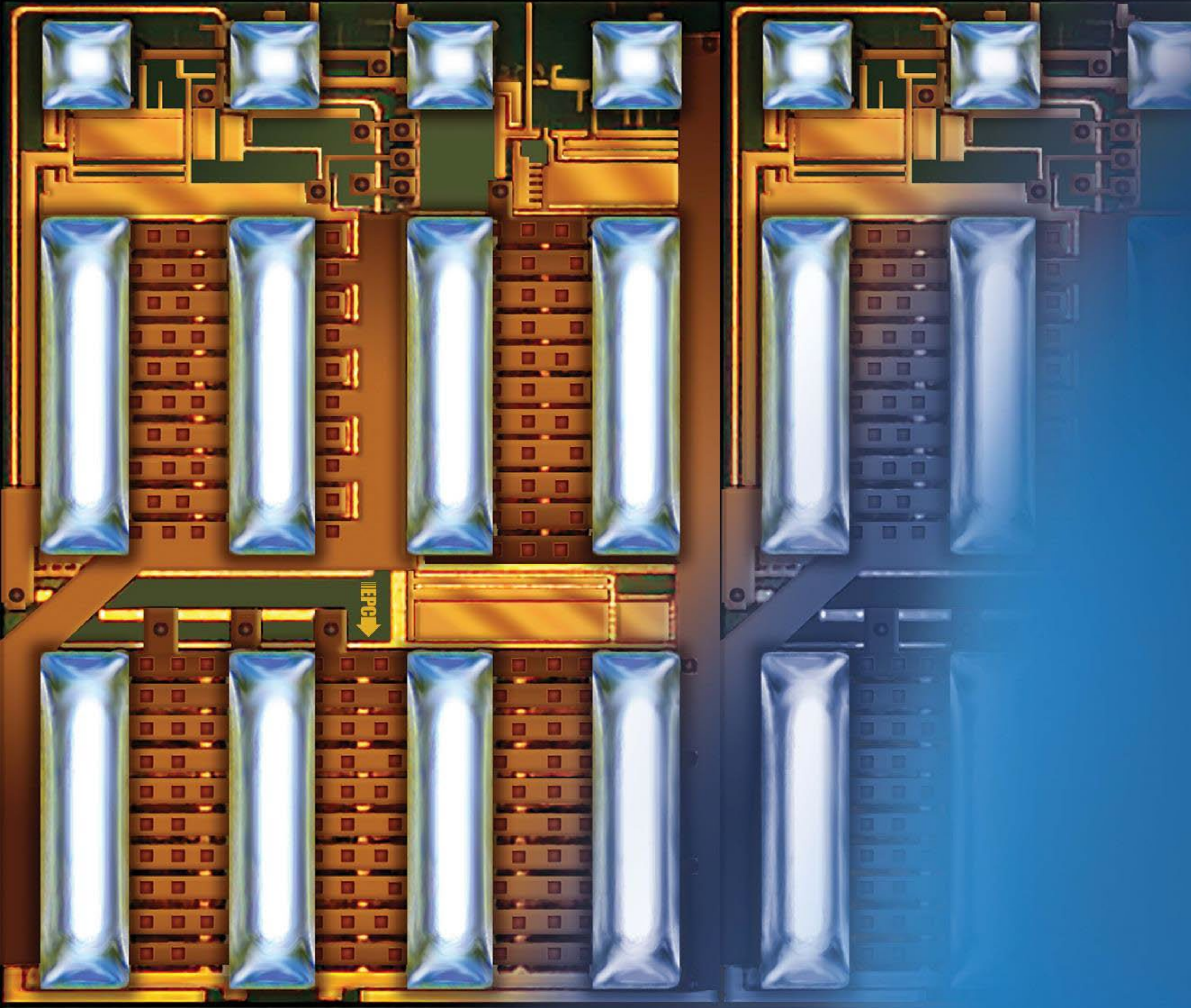


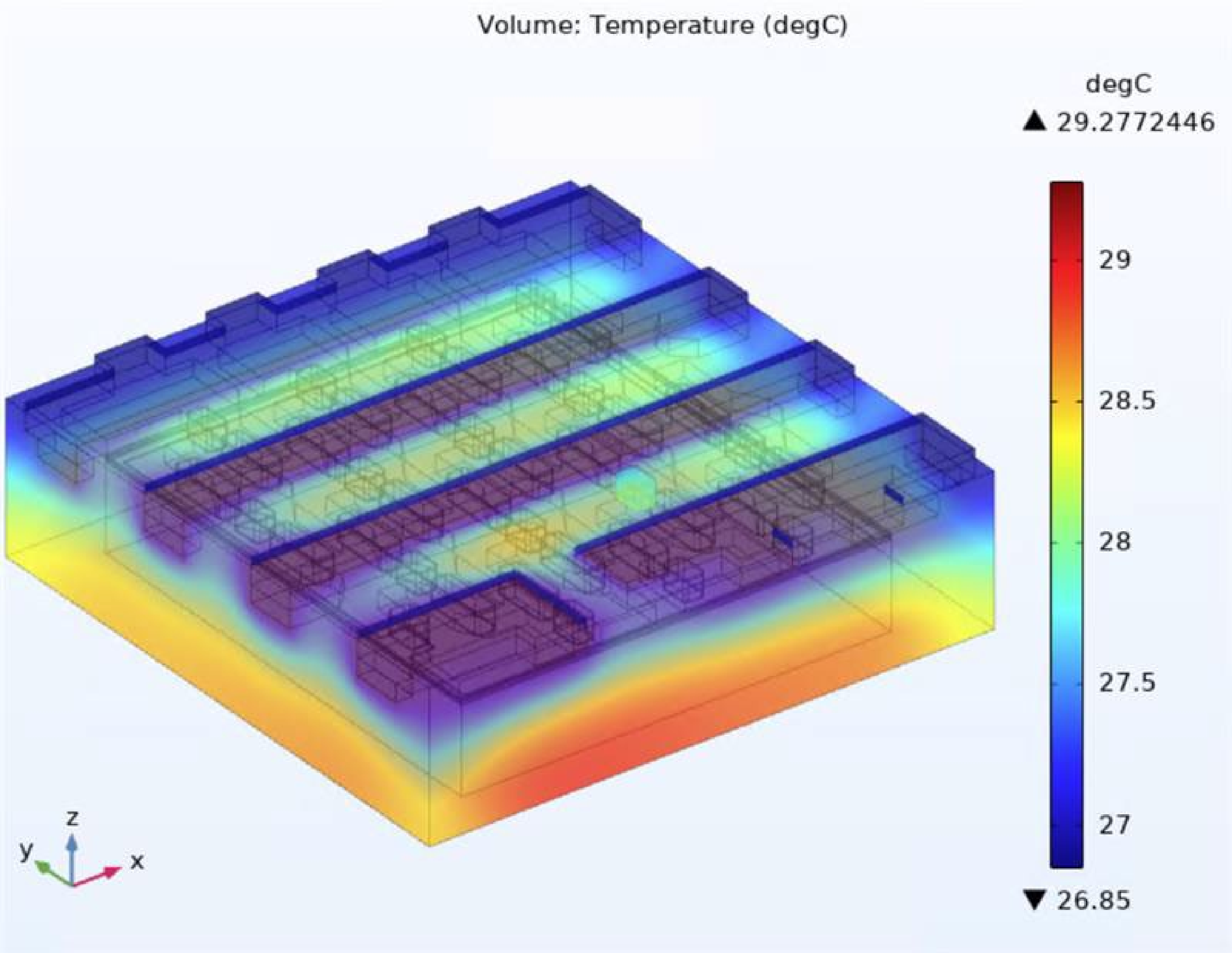
Thermal Model of EPC2367

EPC2367 FEA thermal simulation

- The thermal model applies to EPC2367.
- A power dissipation of 1 W in the device active area is assumed.
- Finite element analysis (FEA) thermal simulations
  - $R_{\Theta JB}$ and $R_{\Theta JC}$ are obtained by stationary simulations.
  - $Z_{\Theta JB}$ and $Z_{\Theta JC}$ are obtained by transient simulations.
- R-C thermal model is generated.

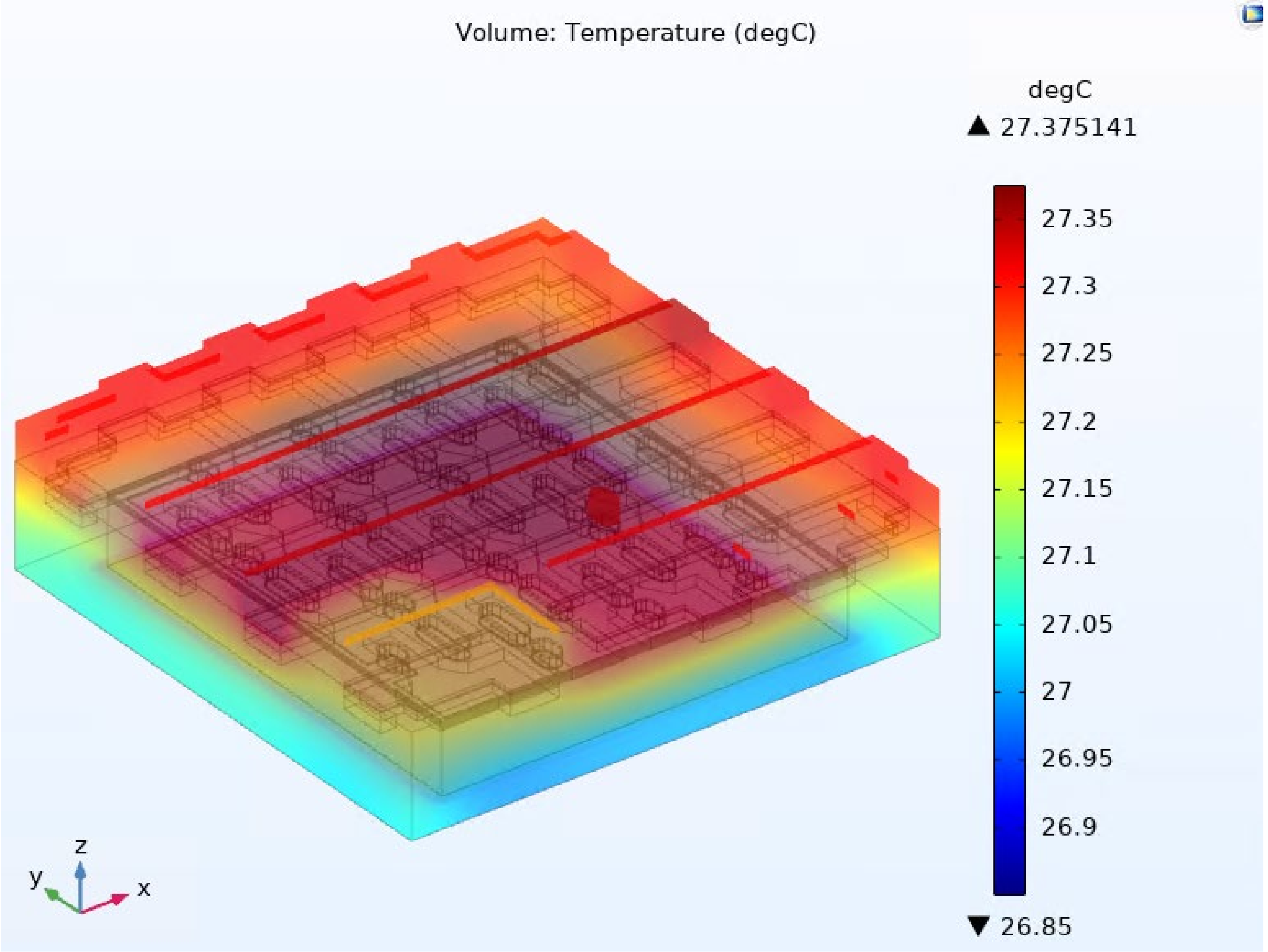
Steady-state $R_{\Theta JB}$

- Example: P = 1 W

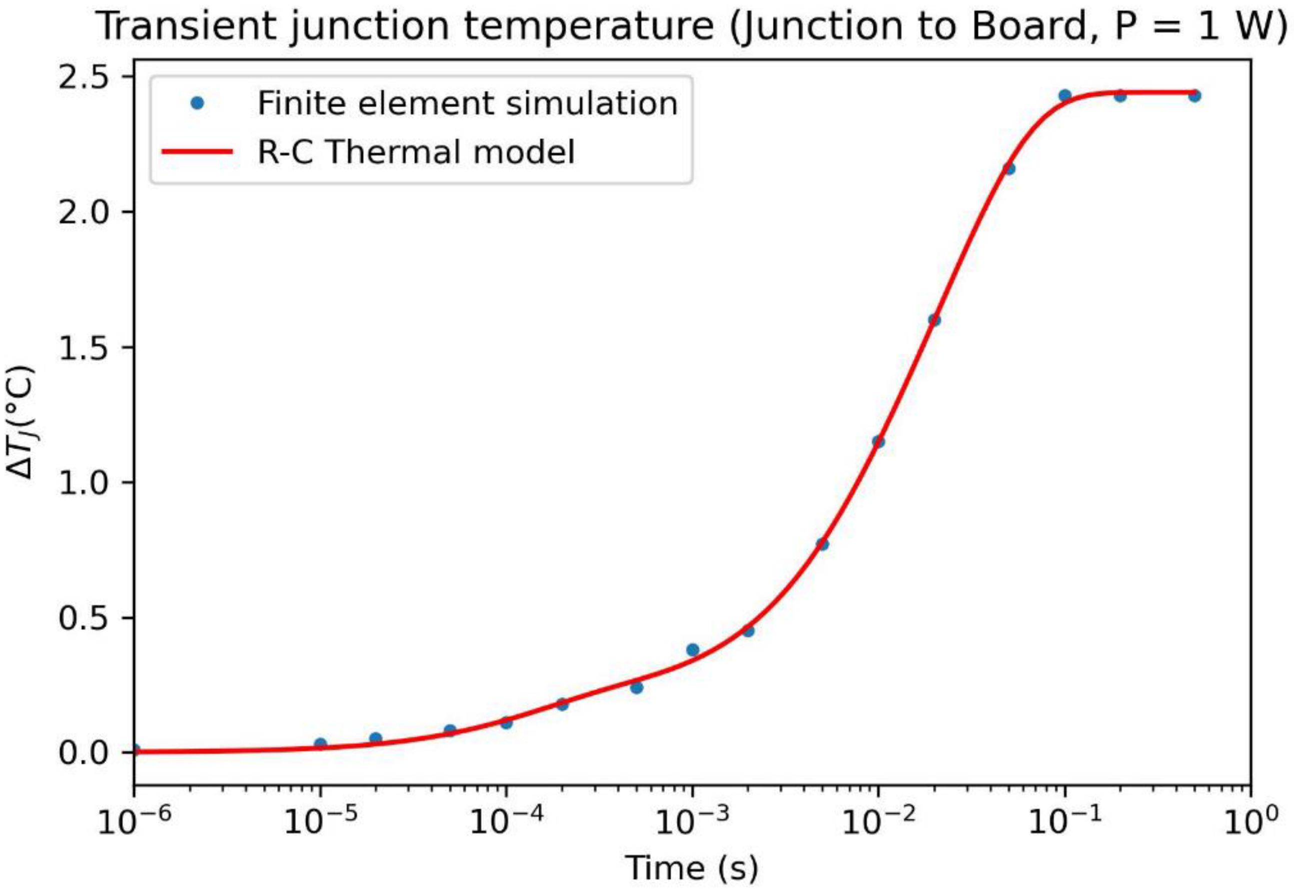


Steady-state $R_{\Theta JC}$

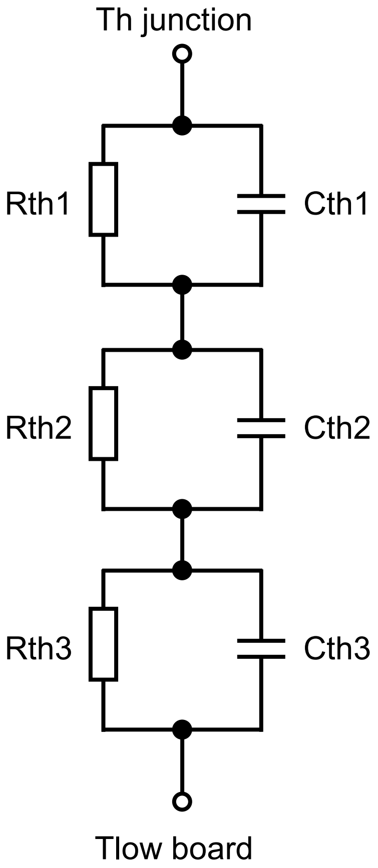
- Example: P = 1 W



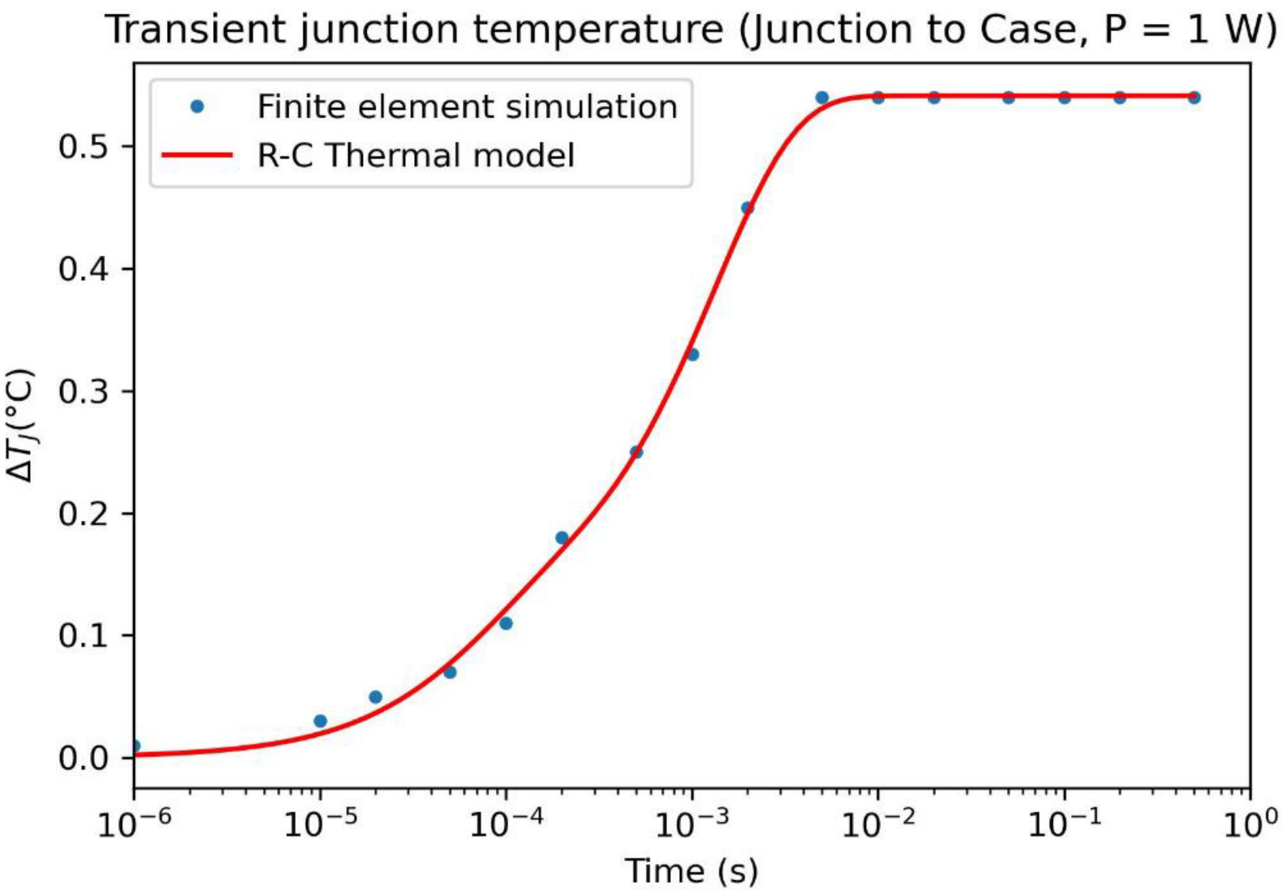
$Z_{\Theta JB}$ R-C thermal model



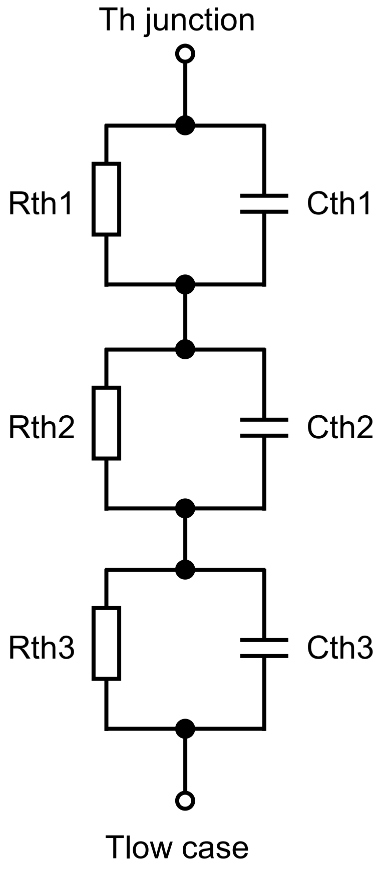
Model Parameter	Value	Unit
Rth1	1.99E-01	°C/W
Rth2	4.90E-01	
Rth3	1.75E+00	
Cth1	6.77E-04	J/°C
Cth2	1.23E-02	
Cth3	1.52E-02	



$Z_{\Theta JC}$ R-C thermal model



Model Parameter	Value	Unit
Rth1	4.96E-02	°C/W
Rth2	1.17E-01	
Rth3	3.75E-01	
Cth1	2.71E-02	J/°C
Cth2	5.75E-04	
Cth3	3.59E-03	



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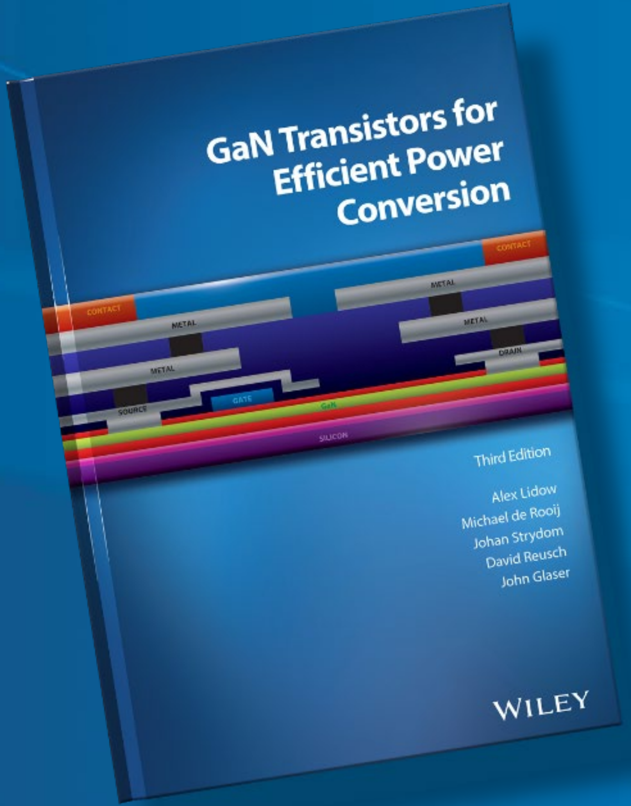
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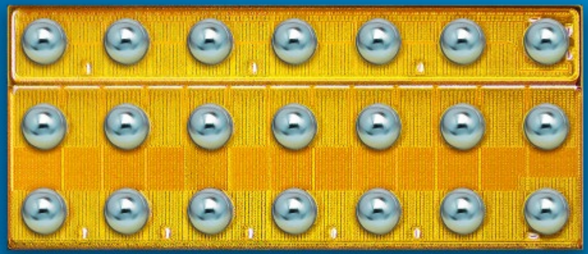

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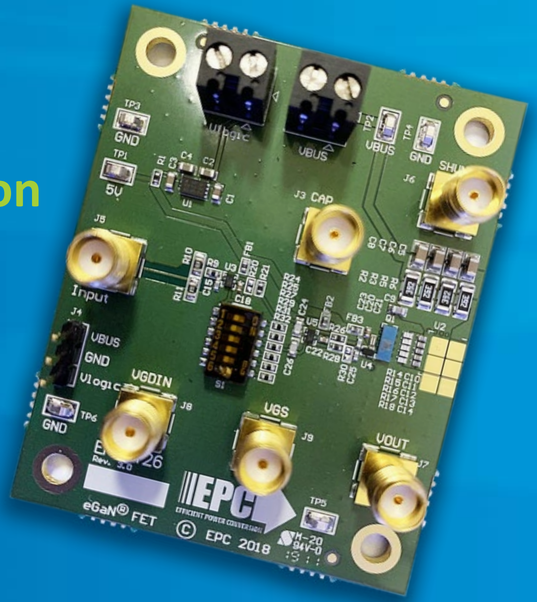

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