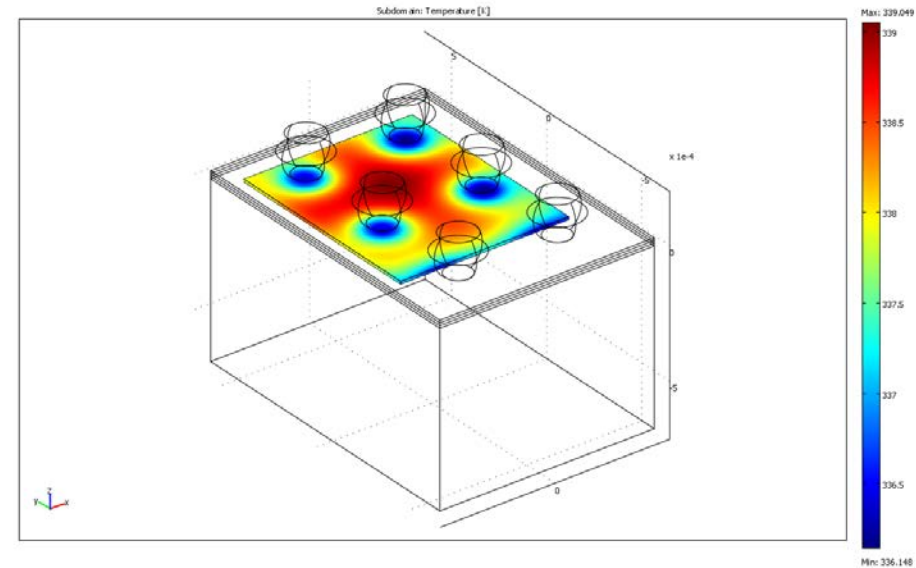
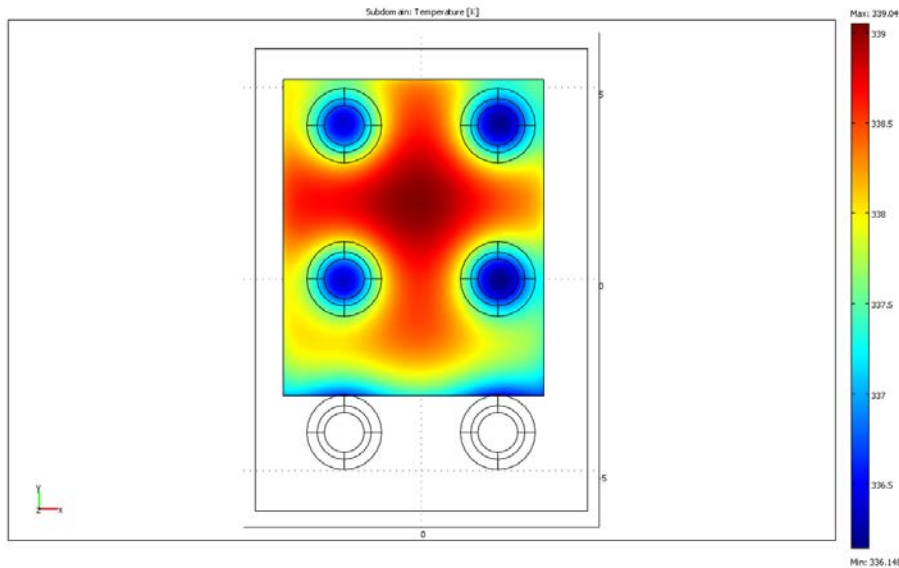


EPC21603 Thermal Model

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

Steady State $R_{\Theta JB}$

$$R_{\Theta JB} = 39 \text{ }^{\circ}\text{C/W}$$

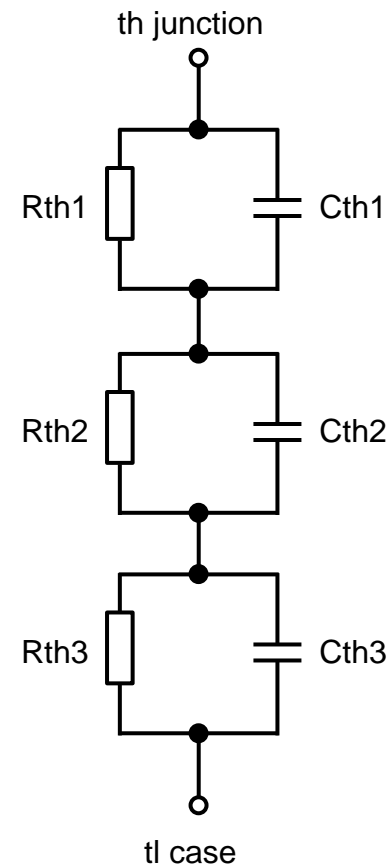


- 1 W dissipation in active volume
- Top of bumps at 300K

Transient $R_{\theta JB}$

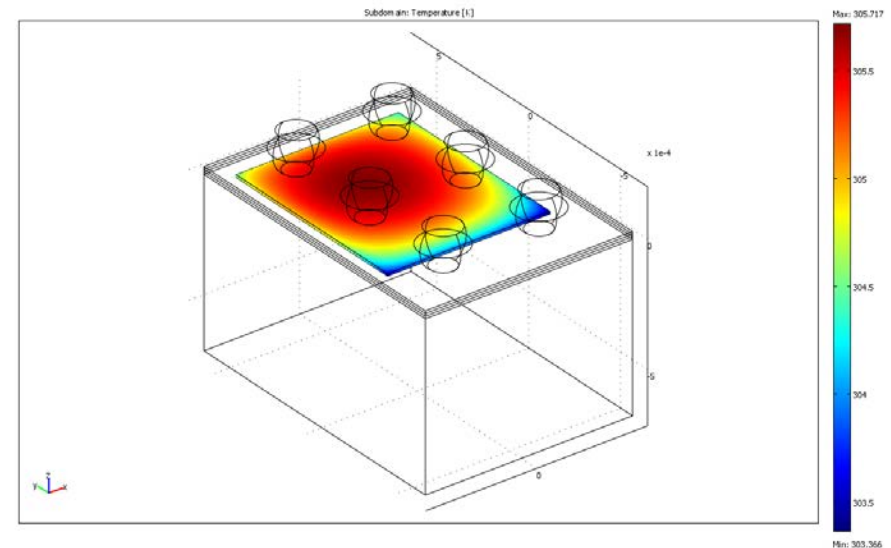
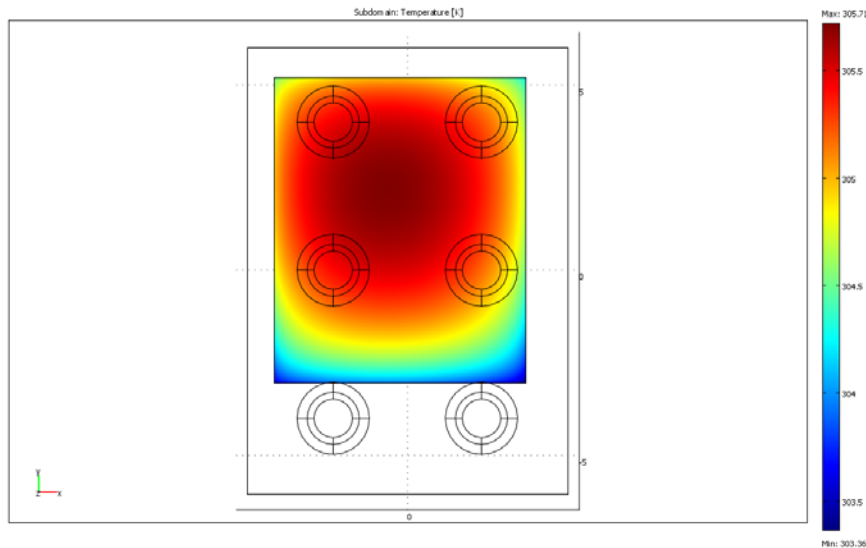
- 1 W total is dissipated in the device

| Fitting parameter | Value | Unit |
|-------------------|---------|-------|
| Rth1 | 36.7 | ° C/W |
| Rth2 | 1.9 | |
| Rth3 | 3.78E-1 | |
| Cth1 | 1.52E-3 | J/° C |
| Cth2 | 3.54E-4 | |
| Cth3 | 2.62E-4 | |



Steady State $R_{\theta JC}$

$$R_{\theta JC} = 5.7 \text{ } ^\circ\text{C/W}$$



- 1 W dissipation in active volume
- Top of bumps at 300K

Transient $R_{\theta JC}$

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

| Fitting parameter | Value | Unit |
|-------------------|---------|-------|
| Rth1 | 3.99 | ° C/W |
| Rth2 | 1.6 | |
| Rth3 | 1.08E-1 | |
| Cth1 | 9.68E-4 | J/° C |
| Cth2 | 1.98E-4 | |
| Cth3 | 9.61E-4 | |

