



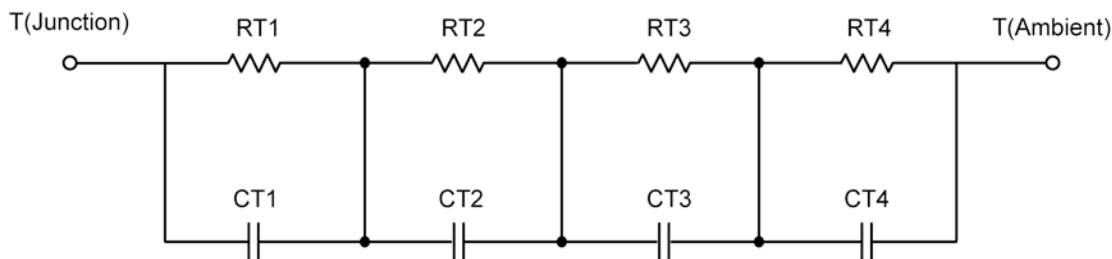
## R-C Thermal Model Parameters

### DESCRIPTION

The parametric values in the R-C thermal model have been derived using curve-fitting techniques. R-C values for the electrical circuit in the Foster/Tank and Cauer/Filter configurations are included. When implemented in P-SPICE, these values have matching characteristic curves to the single-pulse transient thermal impedance curves for the MOSFET.

These RC values can be used in the P-SPICE simulation to evaluate the thermal behavior of the MOSFET junction temperature under a defined power profile. These techniques are described in Application Note AN609, "Thermal Simulation of Power MOSFETs on the P-Spice Platform."

### R-C THERMAL MODEL FOR TANK CONFIGURATION

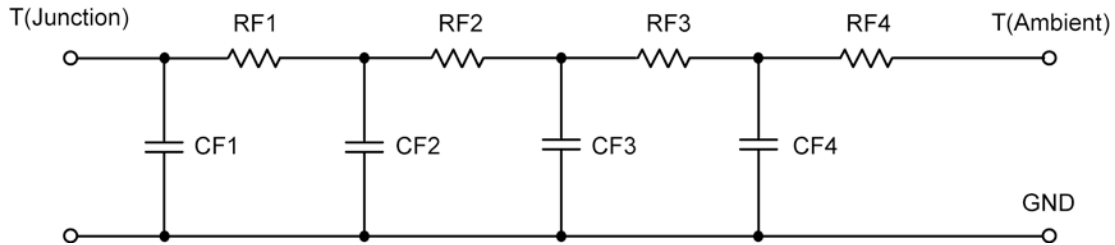


R-C VALUES FOR TANK CONFIGURATION			
Thermal Resistance (°C/W)			
Junction to	Ambient	Case	Foot
RT1	992.6000 m	93.9290 m	N/A
RT2	2.6998	173.8834 m	N/A
RT3	10.1707	86.9621 m	N/A
RT4	26.1369	45.2255 m	N/A
Thermal Capacitance (Joules/°C)			
Junction to	Ambient	Case	Foot
CT1	356.5717 m	5.1600 m	N/A
CT2	1.1724	8.4852 m	N/A
CT3	12.2160	67.7729 m	N/A
CT4	3.2766	300.2018 m	N/A

This document is intended as a SPICE modeling guideline and does not constitute a commercial product data sheet. Designers should refer to the appropriate data sheet of the same number for guaranteed specification limits.



**R-C THERMAL MODEL FOR FILTER CONFIGURATION**



<b>R-C VALUES FOR FILTER CONFIGURATION</b>			
Thermal Resistance (°C/W)			
Junction to	Ambient	Case	Foot
RF1	1.9657	46.9586 m	N/A
RF2	7.0669	199.1931 m	N/A
RF3	25.7046	55.9628 m	N/A
RF4	5.2628	97.8855 m	N/A
Thermal Capacitance (Joules/°C)			
Junction to	Ambient	Case	Foot
CF1	195.1037 m	2.1953 m	N/A
CF2	929.6338 m	1.2938 m	N/A
CF3	1.8530	19.0286 m	N/A
CF4	92.8485 m	26.1317 m	N/A

Note: NA indicates not applicable

