

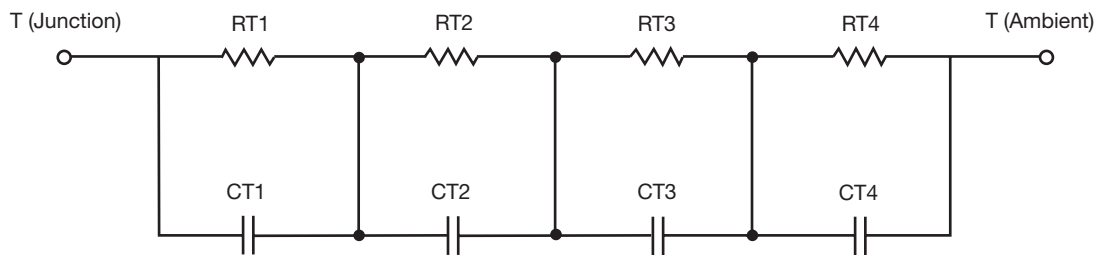
R-C Thermal Model Parameters

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

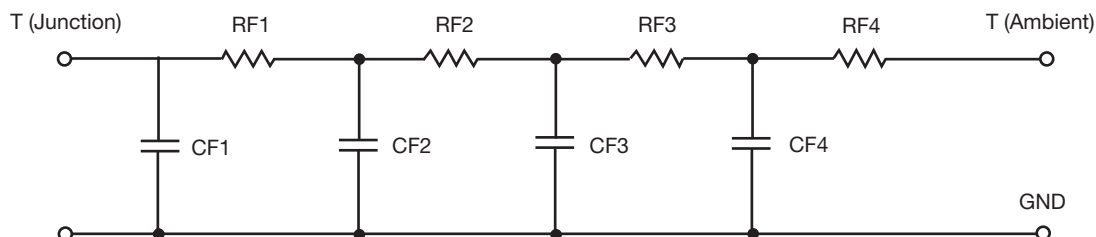


R-C VALUES FOR TANK CONFIGURATION			
THERMAL RESISTANCE (°C/W)			
Junction to	Ambient	Case	Foot
RT1	15.3152	479.1265m	N/A
RT2	29.4682	352.6423m	N/A
RT3	6.7704	508.6749m	N/A
RT4	29.6476	1.0672	N/A
THERMAL CAPACITANCE (Joules/°C)			
Junction to	Ambient	Case	Foot
CT1	46.6762m	914.7752u	N/A
CT2	1.3502	66.4012m	N/A
CT3	6.9447m	39.7723m	N/A
CT4	3.5472	7.1779m	N/A

Note

N/A indicates not applicable

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

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

THERMAL RESISTANCE (°C/W)			
Junction to	Ambient	Case	Foot
RF1	9.0198	645.7039m	N/A
RF2	14.3335	1.2125	N/A
RF3	21.0174	533.1209m	N/A
RF4	36.3628	14.1355m	N/A
THERMAL CAPACITANCE (Joules/°C)			
Junction to	Ambient	Case	Foot
CF1	6.1330m	815.3652u	N/A
CF2	43.3935m	4.8827m	N/A
CF3	769.1989m	20.3331m	N/A
CF4	843.7893m	32.7687m	N/A

Note

N/A indicates not applicable

