

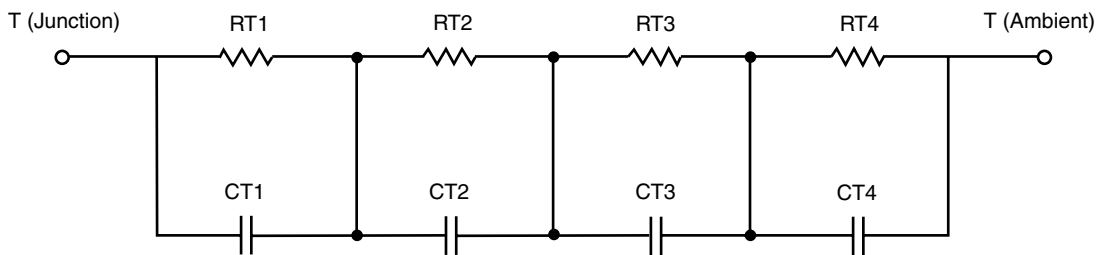
R-C Thermal Model Parameters

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

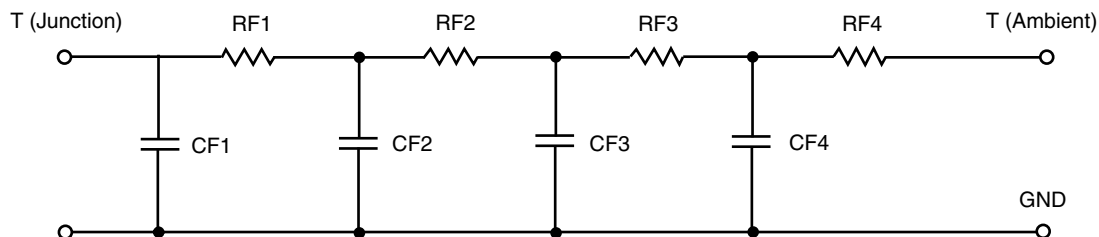


R-C VALUES FOR TANK CONFIGURATION			
THERMAL RESISTANCE (°C/W)			
Junction to	Ambient	Case	Foot
RT1	3.8244	664.8568 m	N/A
RT2	2.5492	558.3597 m	N/A
RT3	9.9635	285.9802 m	N/A
RT4	48.6629	290.8033 m	N/A
THERMAL CAPACITANCE (Joules/°C)			
Junction to	Ambient	Case	Foot
CT1	65.4888 m	28.4642 m	N/A
CT2	55.5257 m	15.1107 m	N/A
CT3	260.6976 m	95.0975 m	N/A
CT4	1.3313	1.3564 m	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	4.4329	219.0035 m	N/A
RF2	6.0015	296.0979 m	N/A
RF3	13.5375	795.0393 m	N/A
RF4	41.0281	489.8593 m	N/A
THERMAL CAPACITANCE (Joules/°C)			
Junction to	Ambient	Case	Foot
CF1	17.5966 m	1.1596 m	N/A
CF2	61.6409 m	1.4306 m	N/A
CF3	244.2502 m	9.5308 m	N/A
CF4	1.2998	2.5688 m	N/A

Note

N/A indicates not applicable

