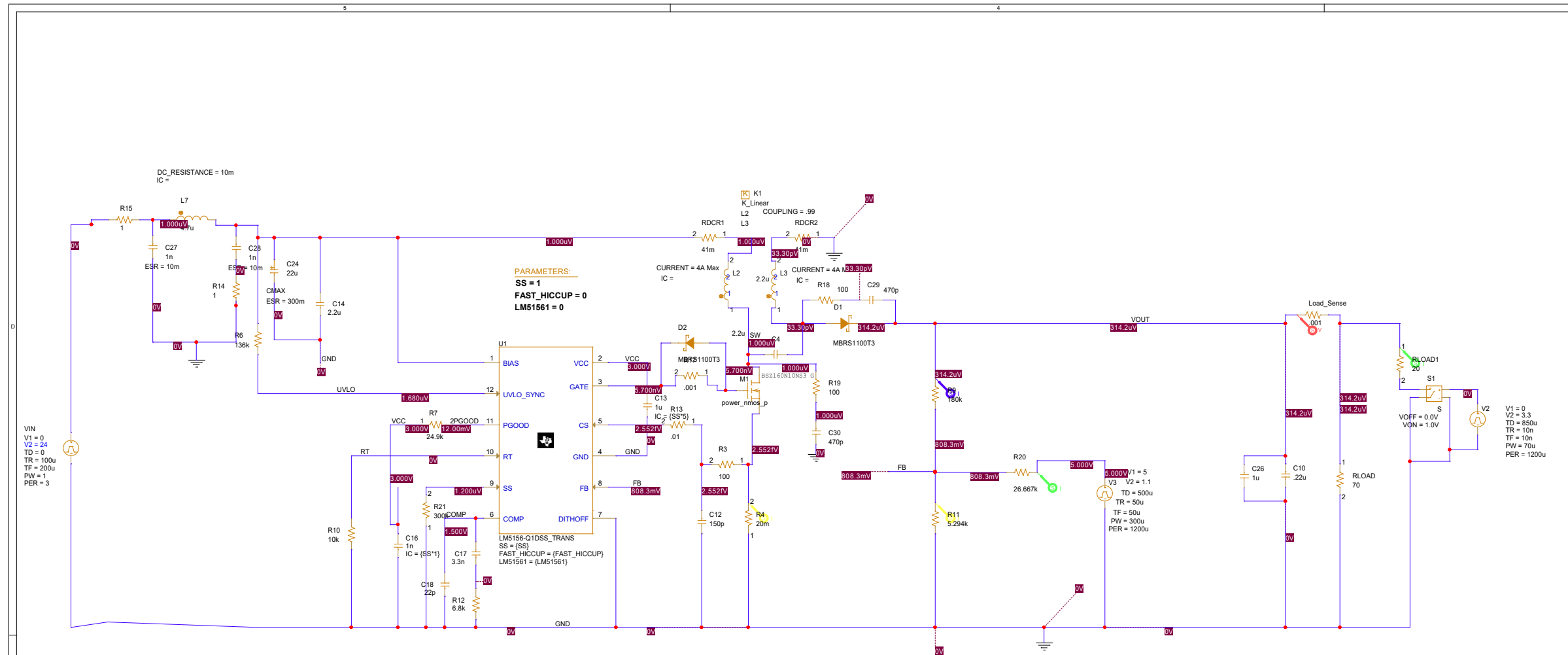




Application Notes:

1. The LM5156-Q1 model is encrypted and will only run in PSPICE Versions 15.7 and up.
2. The SEPIC testbench has been configured VIN = 6V, VOUT = 12V and Iload = 2A.
3. Soft start capacitor C23 is reduced to 0.055u from 0.22u to observe startup behaviour quickly.
4. The parameter SS has been used to reach the steady state faster. Keep SS = 0 to observe startup behaviour and SS = 1 for faster Steady state along with proper initial conditions at VIN, VOUT, SS and VCC nodes.
5. The parameter LM51561 has been used to enable Hiccup feature. Hiccup feature is present in only LM51551 device and not present in LM5156-Q1. Please keep LM51561=1 to enable Hiccup otherwise keep it 0.
6. The parameter FAST_HICCUP has been used to reduce Hiccup mode off time from 32768 cycles to 1024cycles. Keep FAST_HICCUP=1 for 1024 cycles as Hiccup mode off time and quickly see the Hiccup behaviour and FAST_HICCUP = 0 for actual HICCUP behaviour with 32768 cycles as HICCUP mode off time.
7. The operating quiescent current have not been modeled.
8. Thermal shutdown characteristics of the part have not been modeled.
9. Frequency dithering functionality is not modelled.
10. Ground pins have been tied to 0V internally. Therefore, this model cannot be used for inverting topologies
11. The simulation runs for 8ms and takes approximately 4hrs 36minutes to run on a 4 core 2.8GHz machine.





B

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