LTspice Model
DC/DC Buck Regulator
Microchip Technology
MIC261203YJL-TR

Model Information

Model	A macro model
Call Name	MDC_MIC261203YJL-TR_LT
Pin Assign	1:PVDD 2:PGND 3:NC 4:SW 5:PGND 6:PGND 7:PGND 8:PGND 9:SW 10:SW 11:SW 12:SW 13:PVIN 14:PVIN 15:PVIN 16:PVIN 17:PVIN 18:PVIN 19:PVIN 20:BST 21:PGND 22:CS 23:SGND 24:FB 25:PG 26:EN 27:VIN 28:VDD
File List	Model Library MDC_MIC261203YJL-TR_LT02.lib Model Report MDC_MIC261203YJL-TR_LT.pdf(this file)
Verified Simulator Version	LTspice XVII
Note	

References

The information which was used for modeling is as follow:

[Data Sheet]

- ●Date/Version M9999-071311-A July 2011
- ●Product name MIC261203
- ●Company name Microchip Technology

[Characteristics listed]

- ●Characteristics
  - Transient(Soft Start)
  - Input Voltage Range
  - EN Control
  - Over Current Protection

Simulation Condition

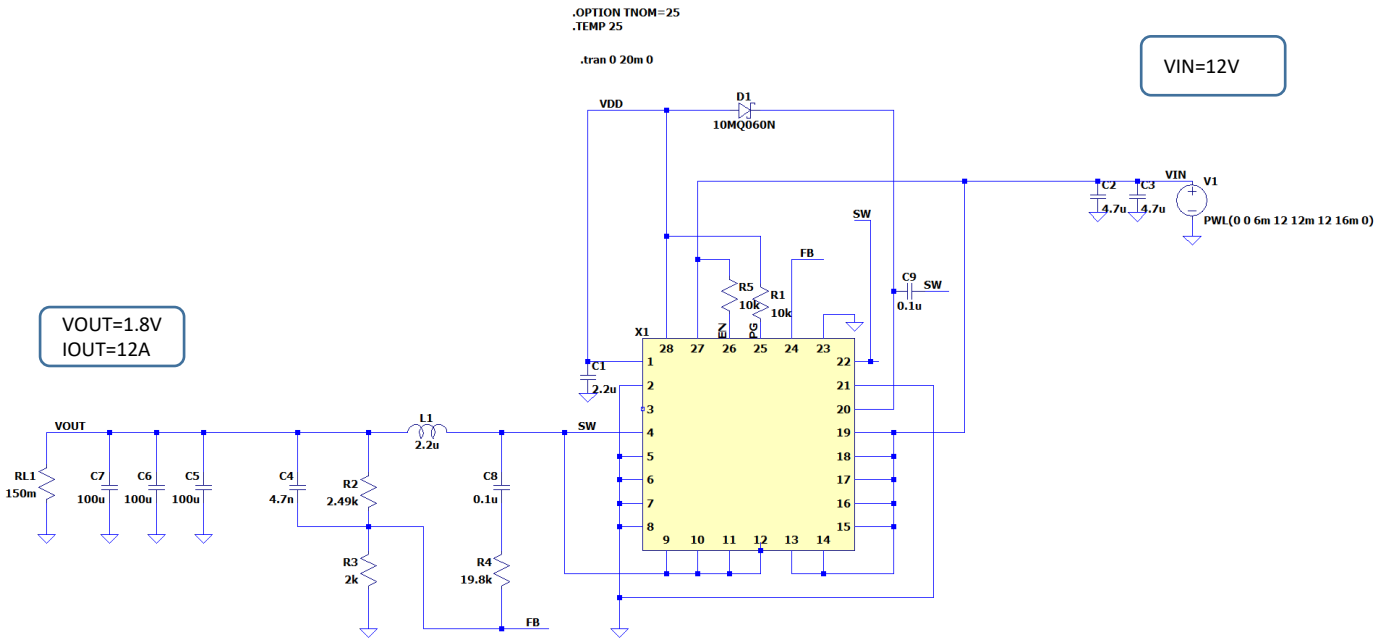
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

Model Functions Table

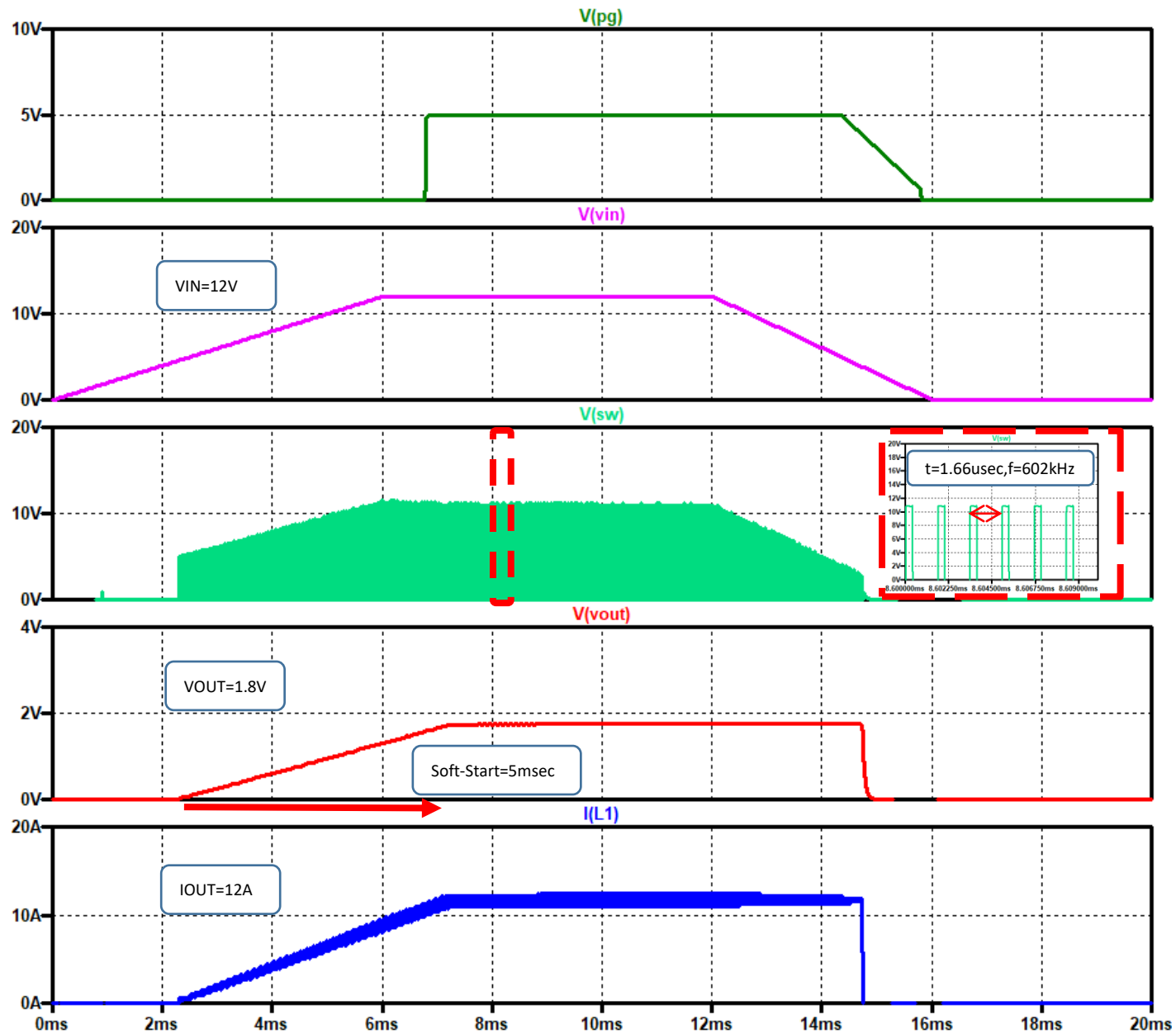
Functions	Implemented
Switching Frequency=600kHz	○
Input voltage range 4.5V to 28V	○
Output current up to 12A	○
Adjustable output voltage from 0.8V to 5.5V	○
Power Good(PG) output	○
Soft start function	○
Current Limit	○

Transient(Soft Start) Testbench

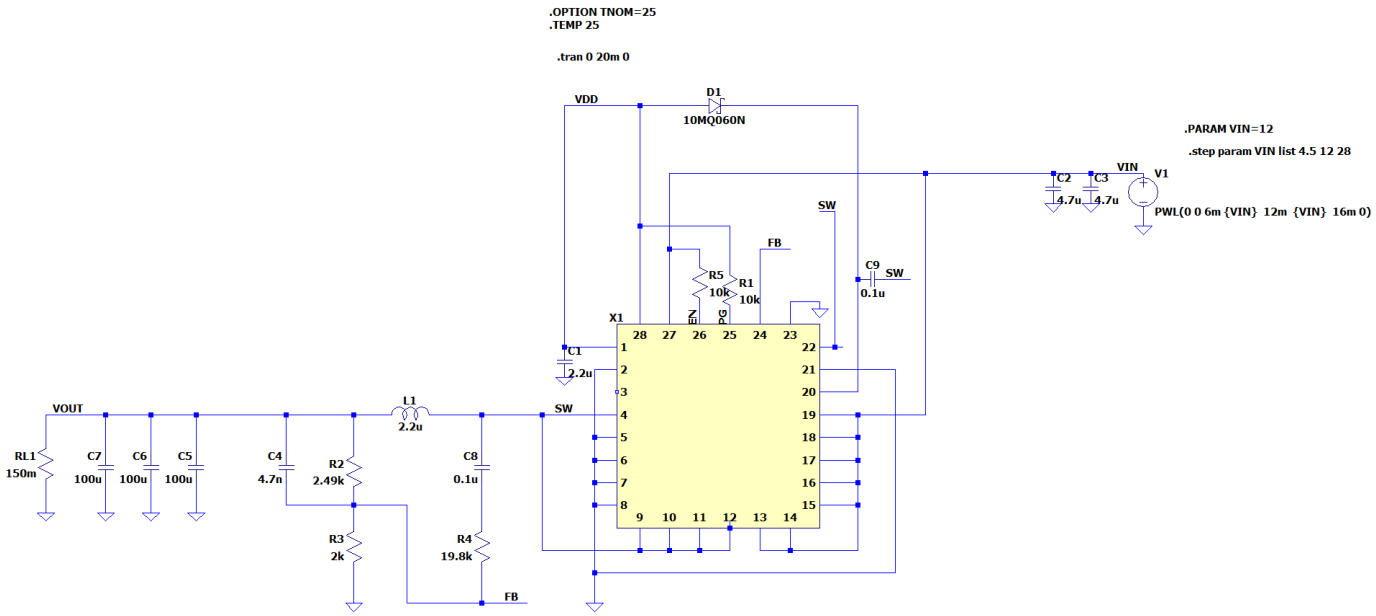


Simulation results are following.
Explanatory notes — : simulated

Transient(Soft Start)

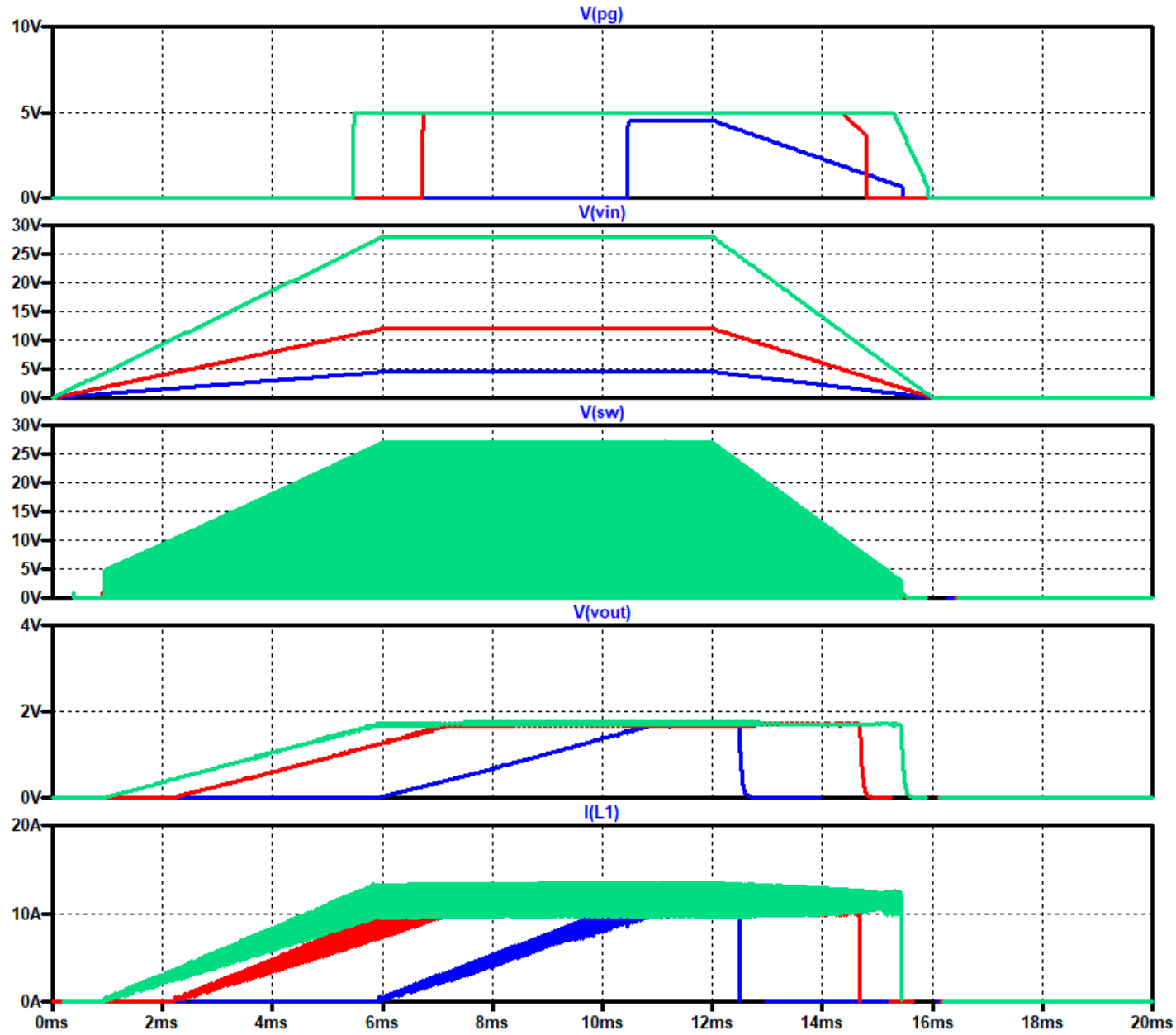


Input Voltage Range TestBench

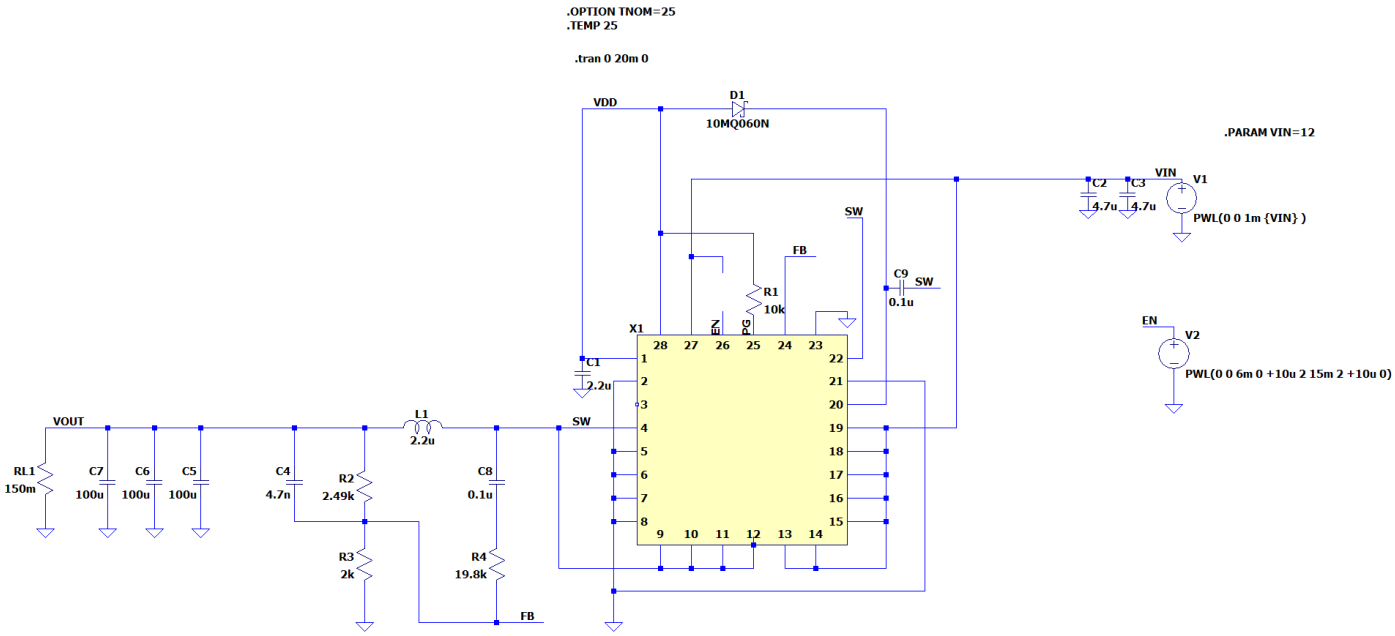


Simulation results are following.
Explanatory notes — : simulated

Input Voltage Range

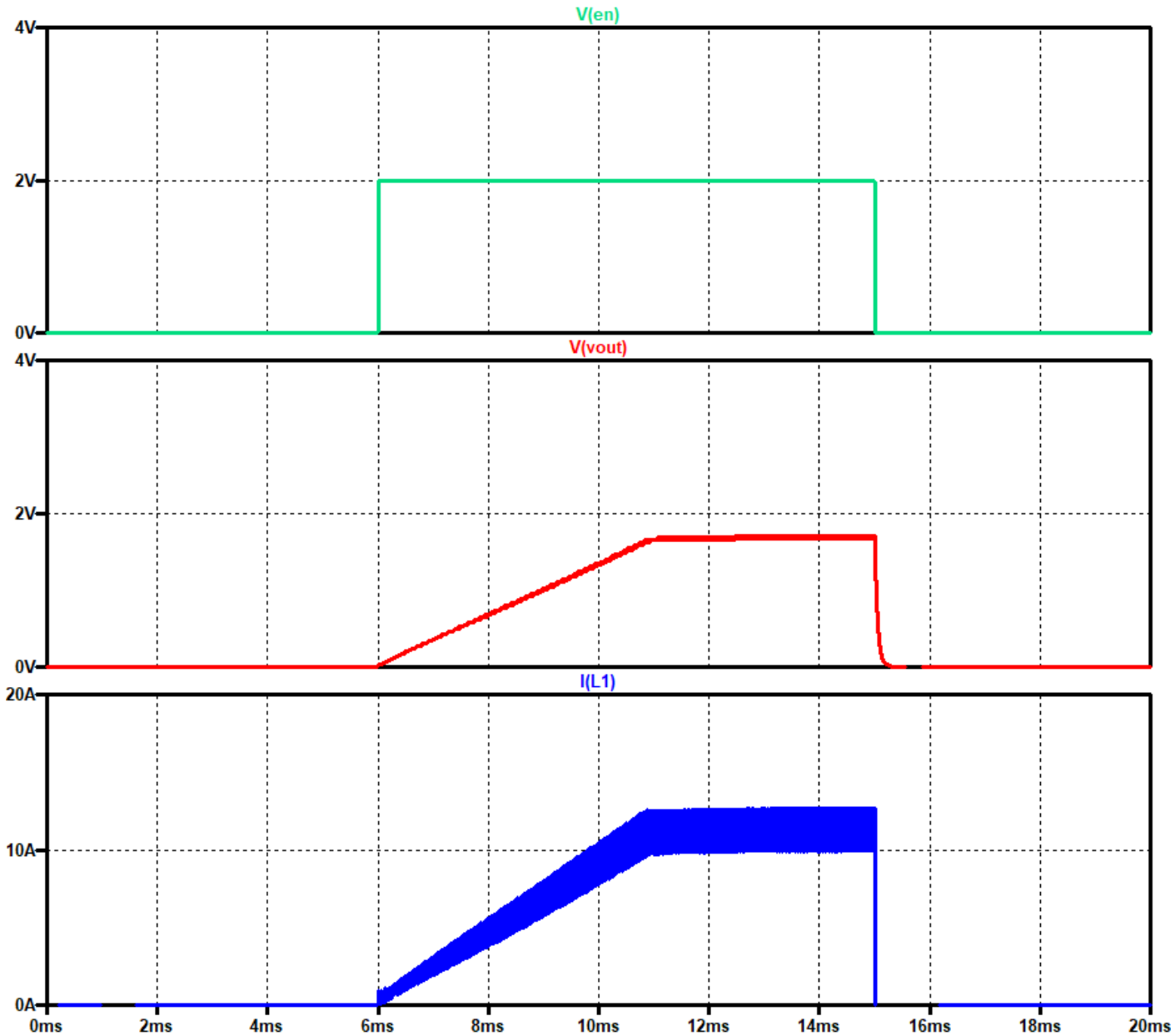


EN Control Testbench

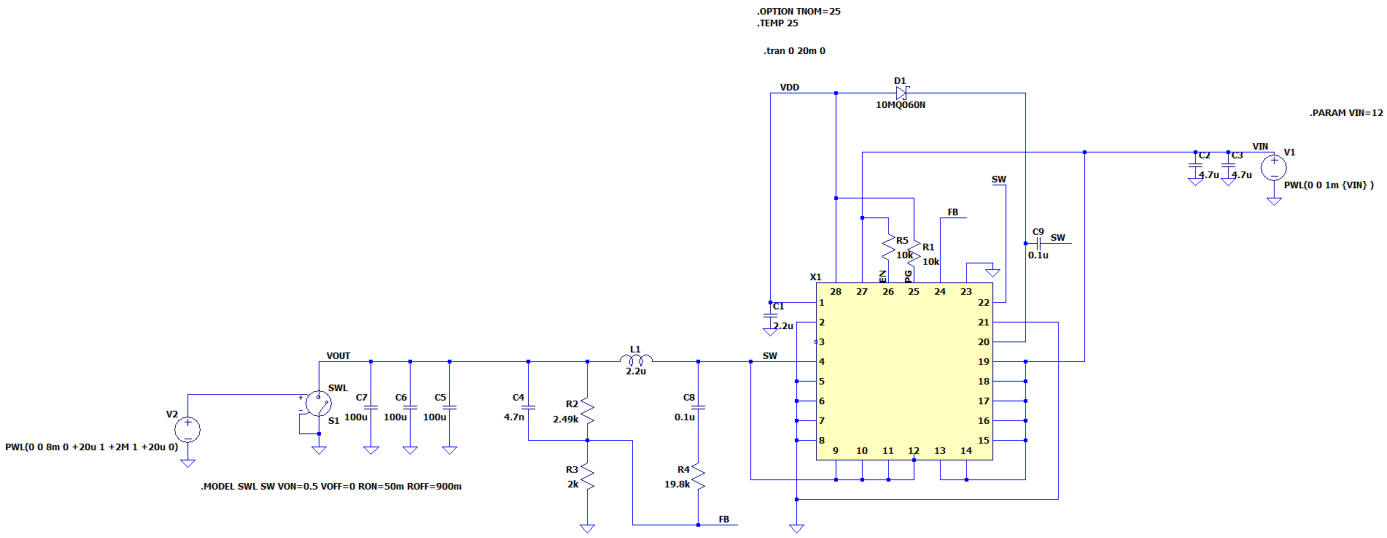


Simulation results are following.
Explanatory notes — : simulated

EN Control

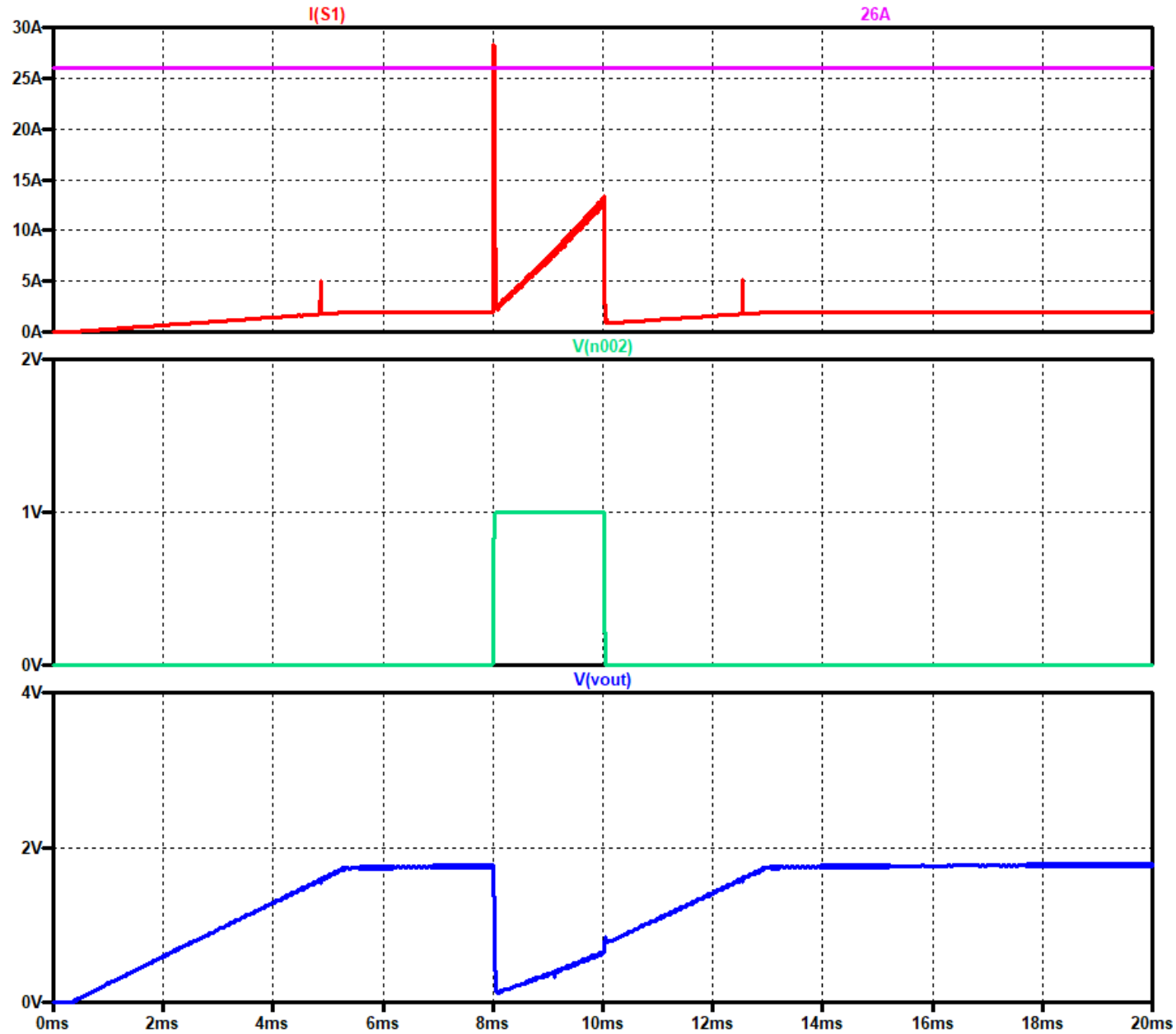


Over Current Protection Testbench



Simulation results are following.
Explanatory notes — : simulated

Over Current Protection



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