

LTspice Model

X Capacitor Bleeder

Monolithic Power Systems

HF81GS

Model Information

Model A macro model
Call Name MDC_HF81GS_LT
Pin Assign 1:NC 2:L1 3:L1 4:NC 5:NC 6:L2 7:L2 8:NC
File List Model Library MDC_HF81GS_LT01.lib
 Model Report MDC_HF81GS_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 Rev. 1.14
- Product name HF81GS
- Company name Monolithic Power Systems

[Characteristics listed]

- Characteristics
 - t_{DETECT}
 - I_{SC}
 - I_{SUPPLY}
 - $V_{OFF_L1/L2}$

Simulation Condition

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

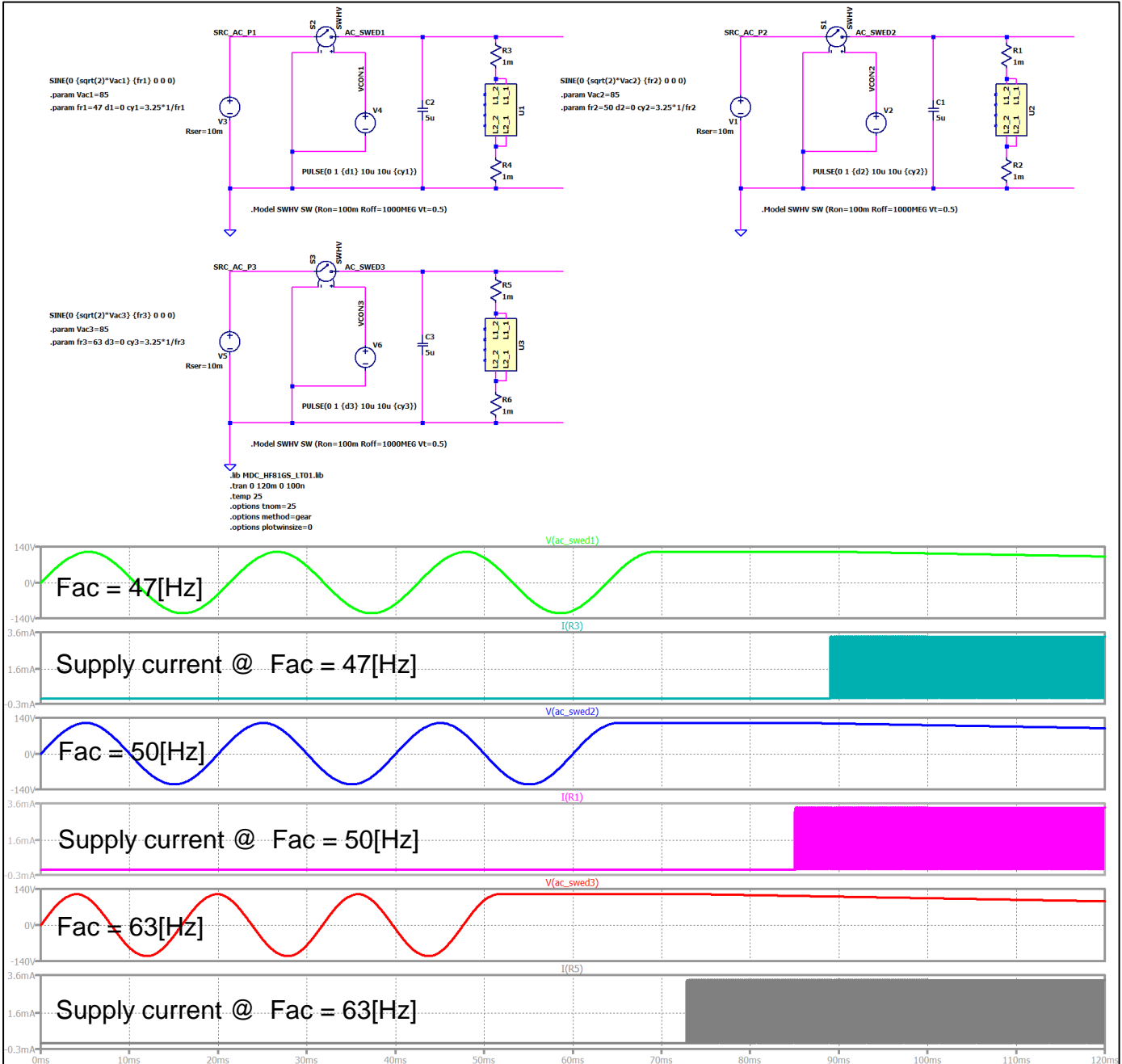
Item	Condition			Unit
	Min	Typ	Max	
L1-L2 Pin Voltage			1000	V
Temperature		25		deg C

Model Functions Table

Functions	Implemented
AC Removal Detection Time	○
Saturation Current	○
Supply Current	○
UVLO	○
Discharge Operation	○
Recovery From Discharge Operation	○

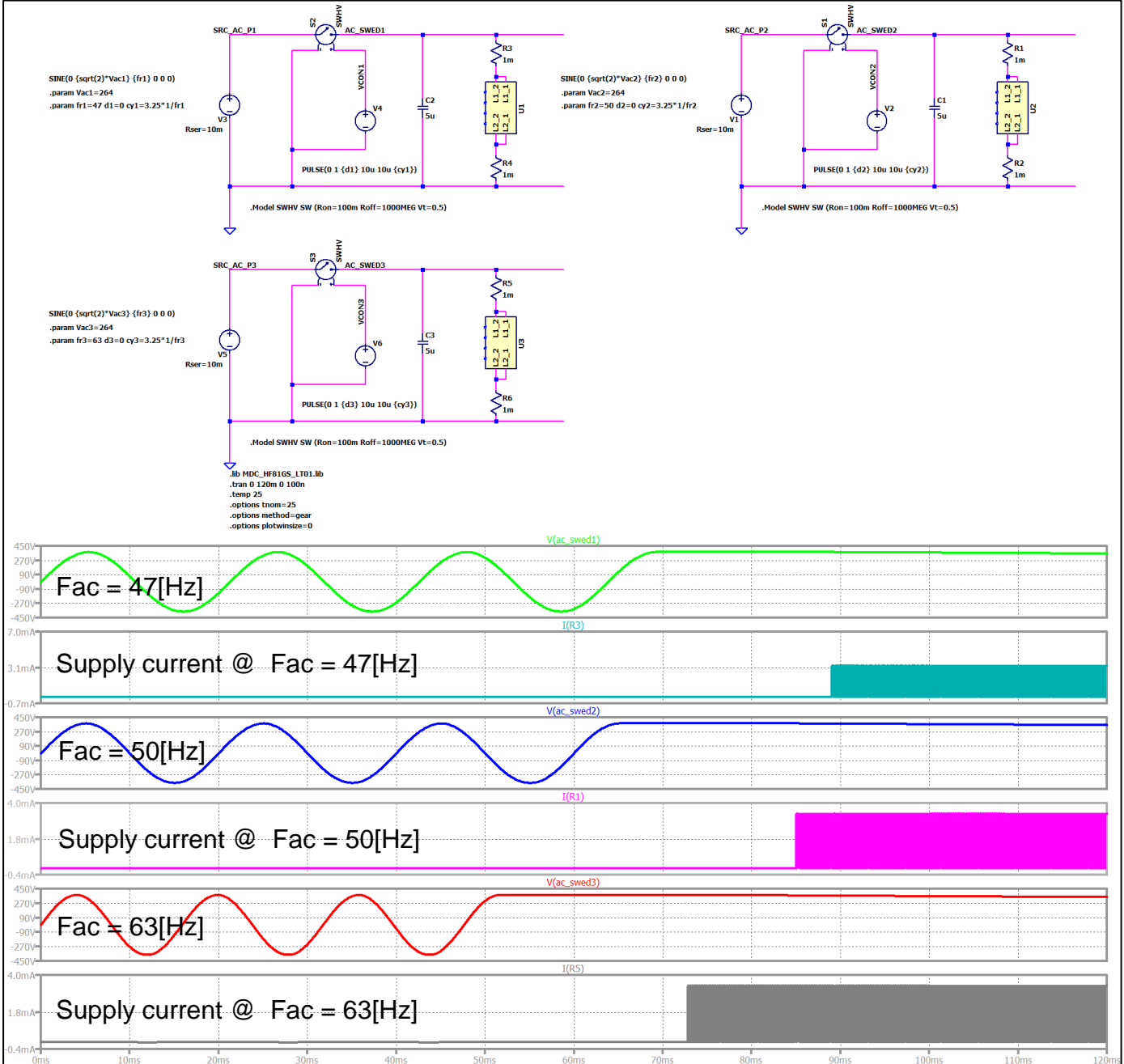
Testbench for AC removal detection time at AC = 85[Vrms]

Referred to Data Sheet



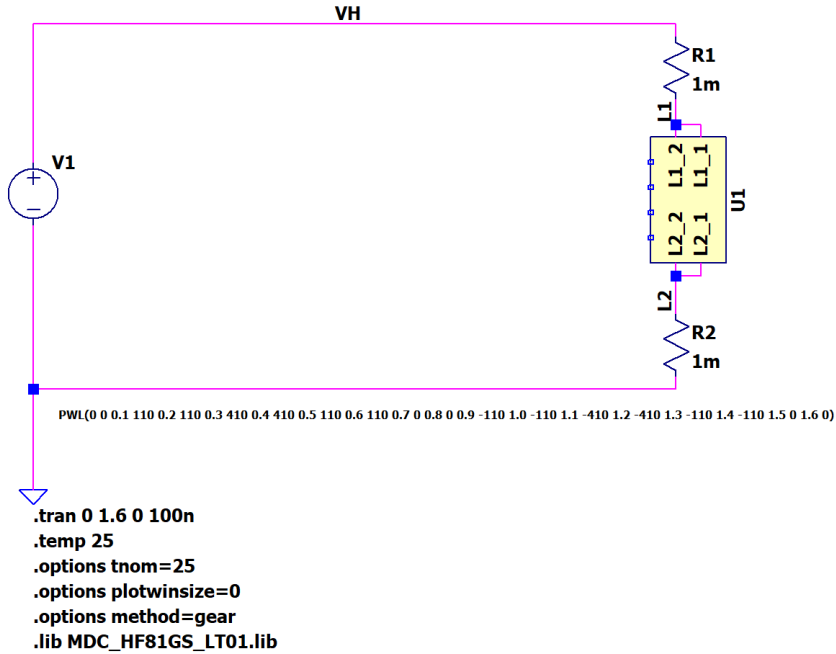
Testbench for AC removal detection time at AC = 264[Vrms]

Referred to Data Sheet



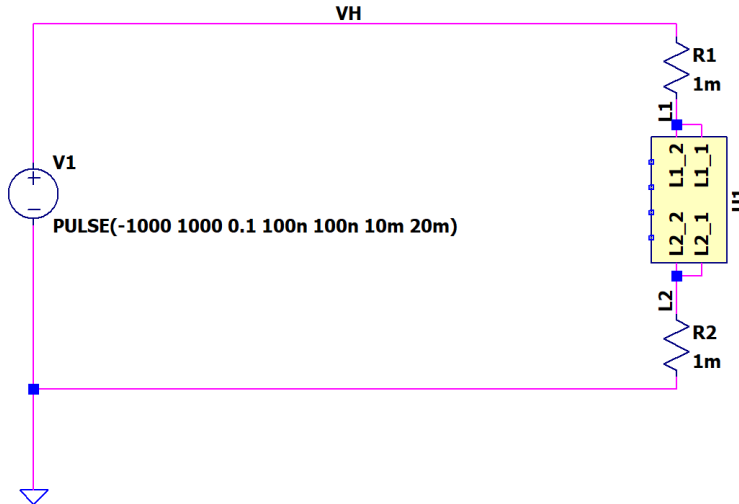
Testbench for saturation current at DC±410[V]

Referred to Data Sheet

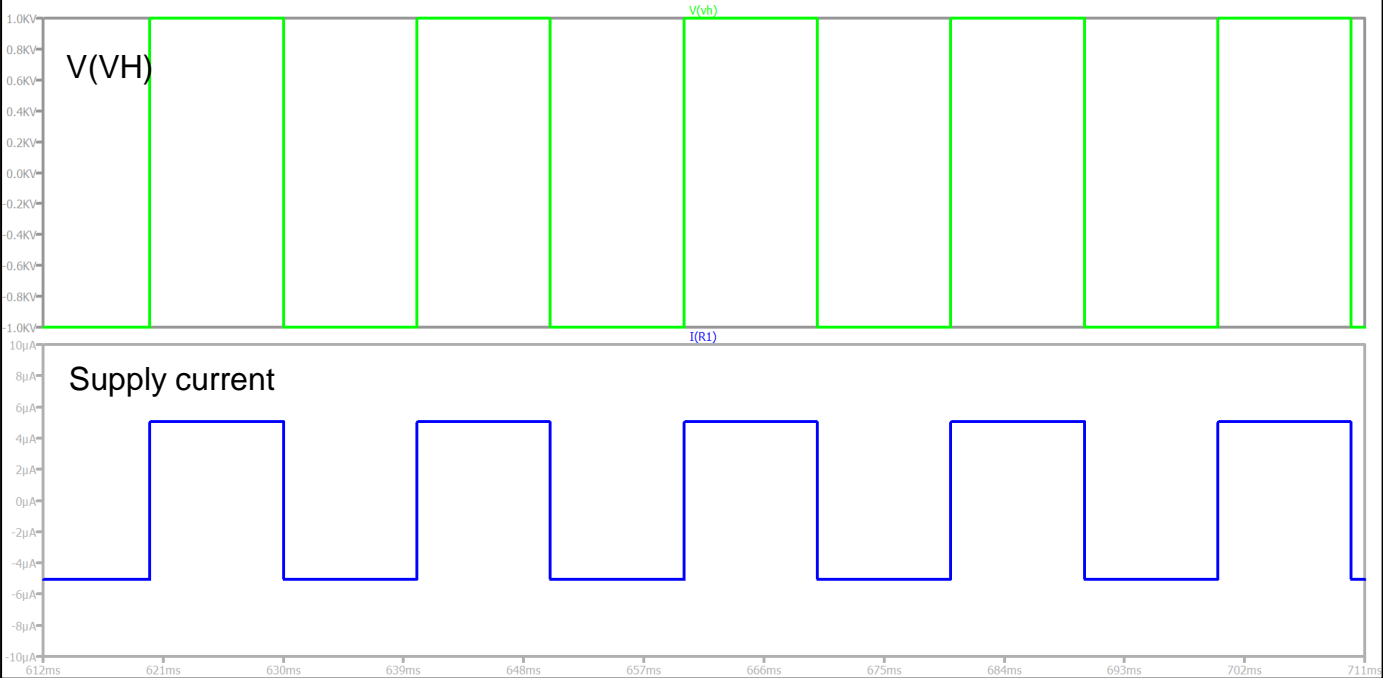


Testbench for supply current

Referred to Data Sheet

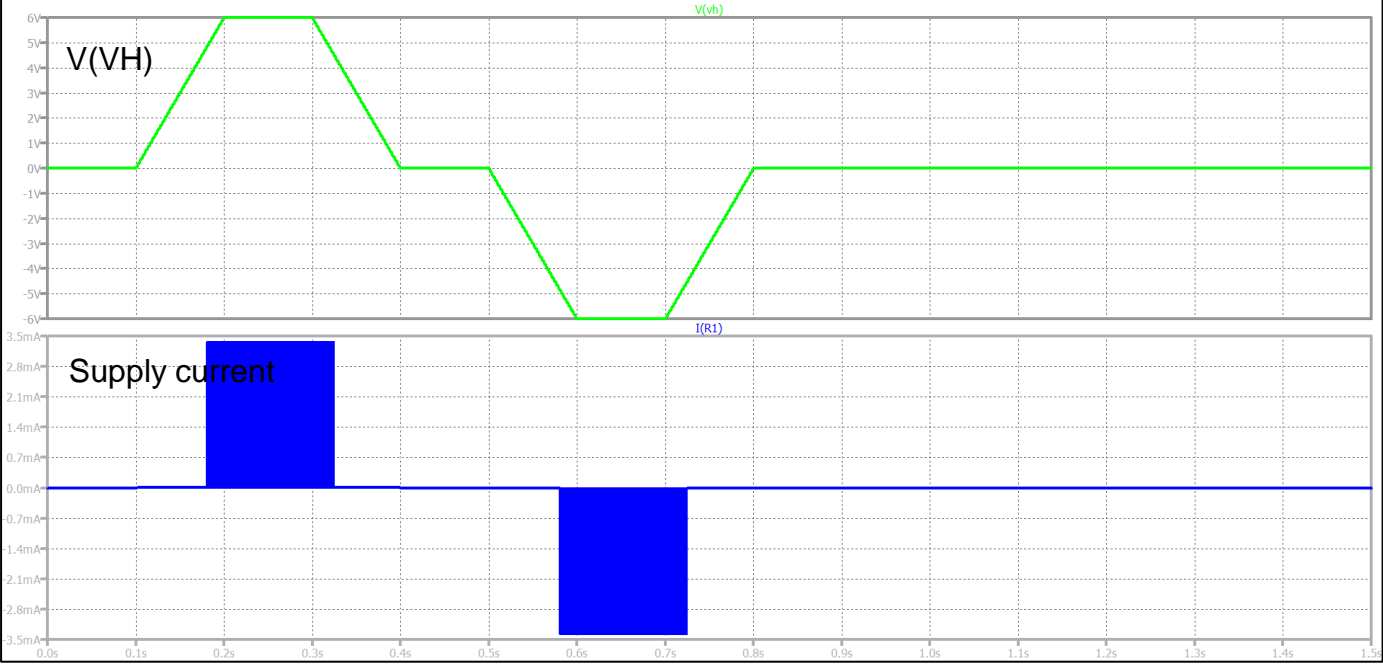
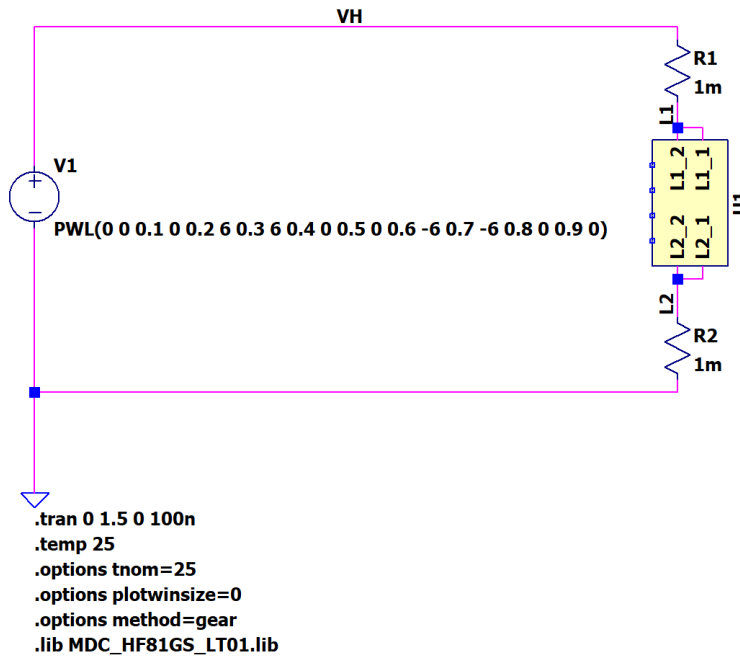


```
.tran 0 1.5 0 100n
.temp 25
.options tnom=25
.options plotwinsize=0
.options method=gear
.lib MDC_HF81GS_LT01.lib
```



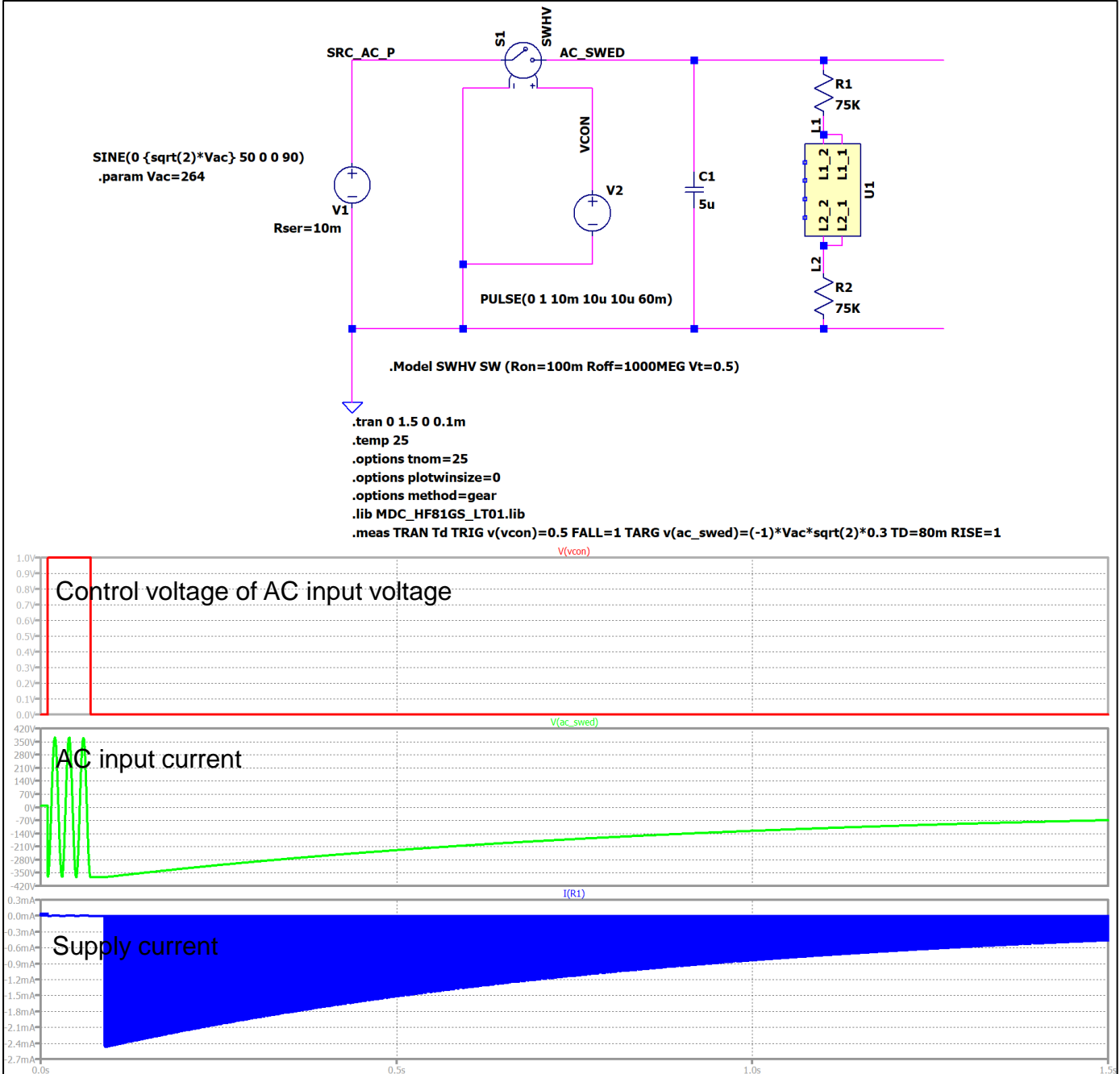
Testbench for UVLO

Referred to Data Sheet



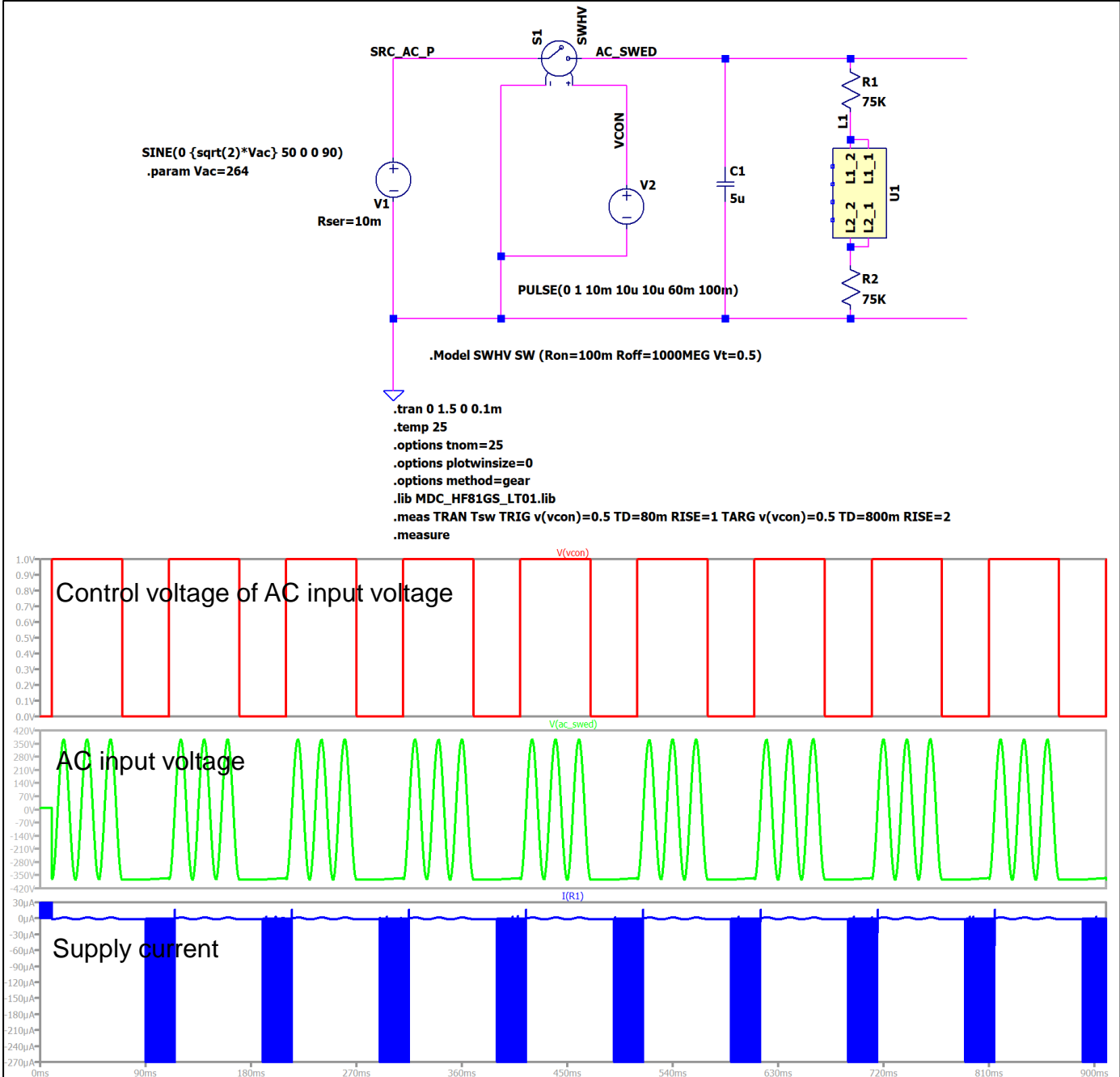
Testbench for discharge operation at AC264[Vrms] (Xcap = 5[uF] and R=150[kΩ])

Referred to Data Sheet



Testbench for discharge operation at AC264[Vrms] (Xcap = 5[uF] and R=150[kΩ])

Referred to Data Sheet



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