LTspice Model
Low Power-Loss Voltage Regulators
SHARP
PQ30RV11J

Model Information

Model	A macro model
Call Name	MDC_PQ30RV11J_LT
Pin Assign	1:VIN 2:VO 3:GND 4:VADJ
File List	Model Library MDC_PQ30RV11J_LT.lib
	Model Report MDC_PQ30RV11J_LT.pdf(this file)

Verified Simulator Version LTspice

Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- ●Date/Version
- ●Product name PQ30RV11J
- ●Company name SHARP

[Characteristics listed]

- ●Characteristics Output Voltage vs Input Voltage
  Line regulation
  Load regulation
  ON/OFF Operation

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

○ : Implemented
× : Not Implemented
— : Not applicable

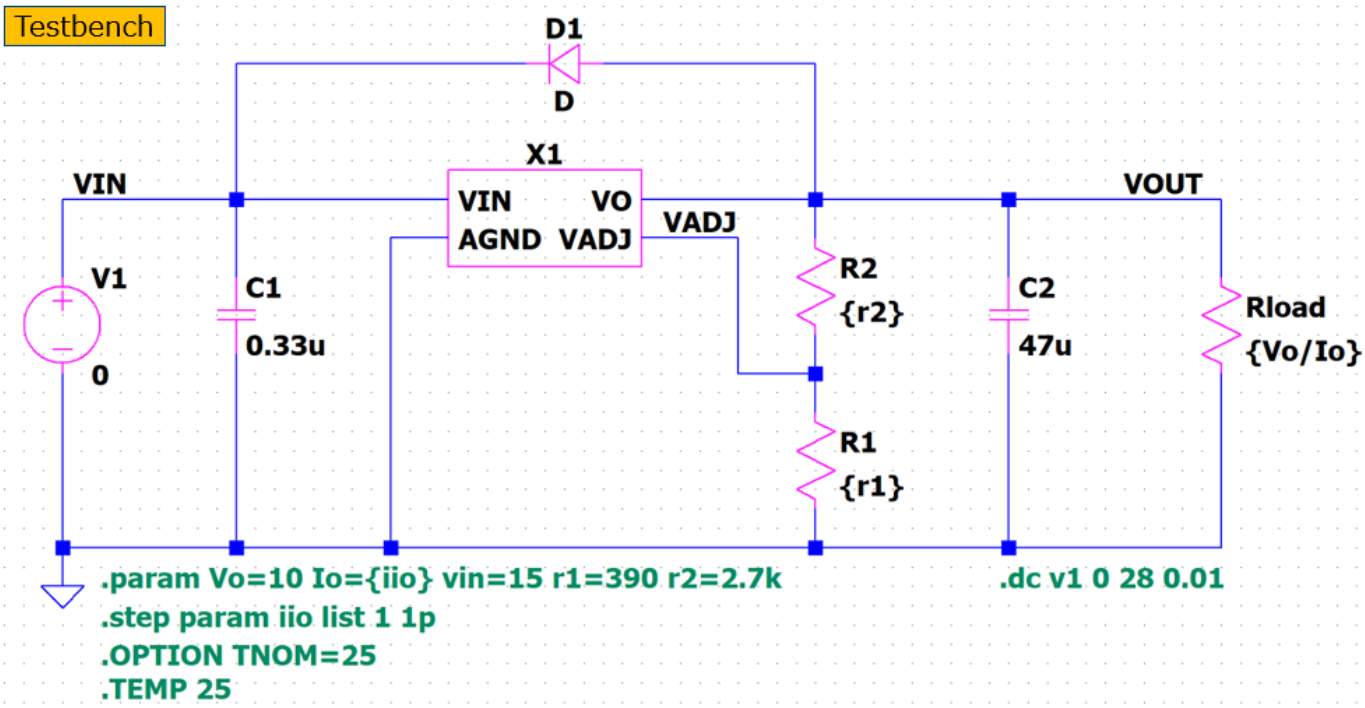
Model Functions Table

	RANK=1	
Functions	**RANK**	**Implemented**
Output Voltage Adjustment Characteristics	1	○
Output Voltage vs Input Voltage	1	○
Line regulation	1	○
Load regulation	1	○
ON/OFF Operation	1	○
Dropout Voltage	1	○
Overcurrent Protection Characteristics	1	○

Output Voltage vs Input Voltage (Input=15V Output=9.9V IOUT=1.0A/1.0pA)

Simulation results are following.
Explanatory notes — : simulated

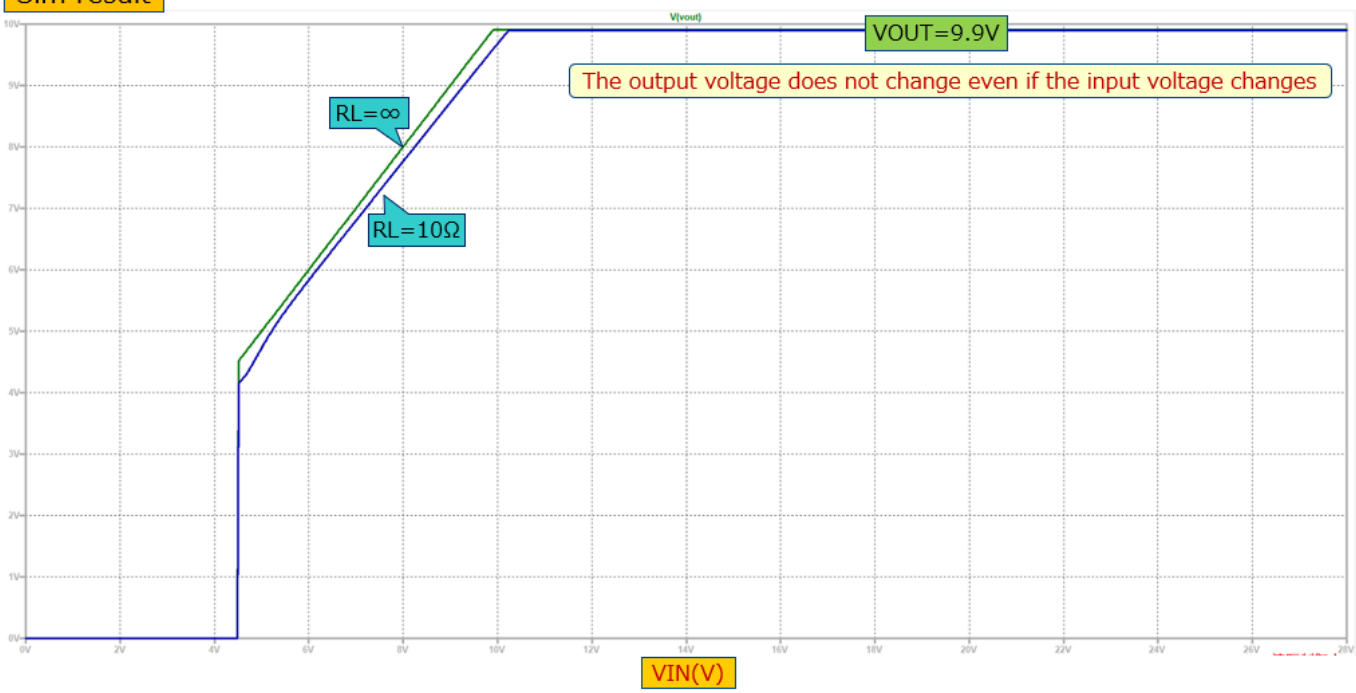
Testbench



Output Voltage vs Input Voltage (Input=15V Output=9.9V IOUT=1.0A/1.0pA)

Simulation results are following.
Explanatory notes — : simulated

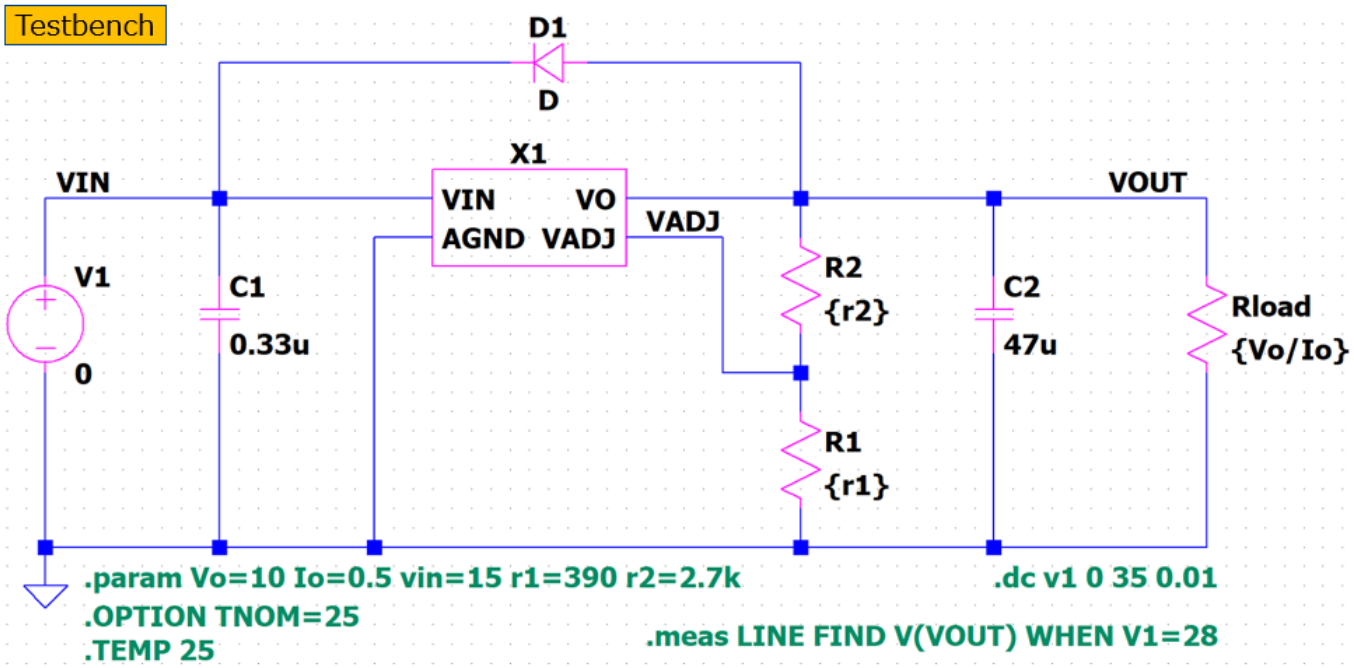
Sim result



Line regulation (Input=0V~35V Output=9.9V IOUT=0.5A)

Simulation results are following.
Explanatory notes — : simulated

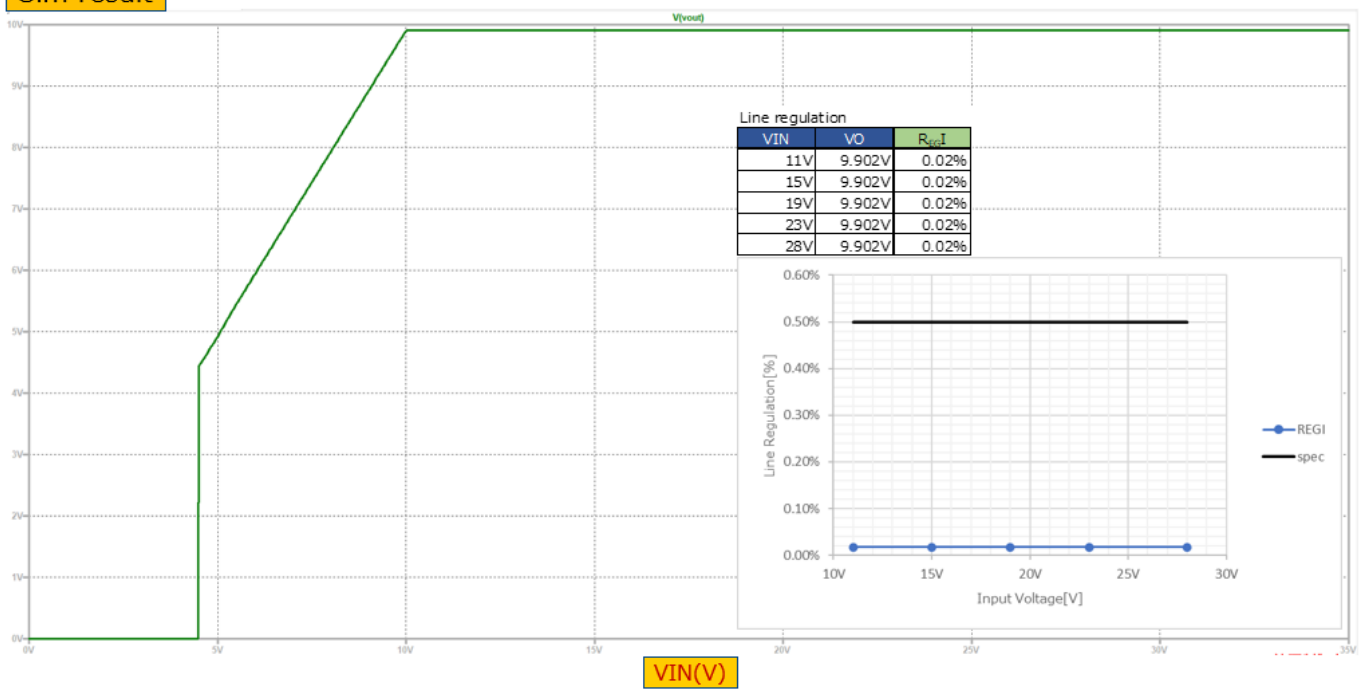
Testbench



Line regulation (Input=0V~35V Output=9.9V IOUT=0.5A)

Simulation results are following.
Explanatory notes — : simulated

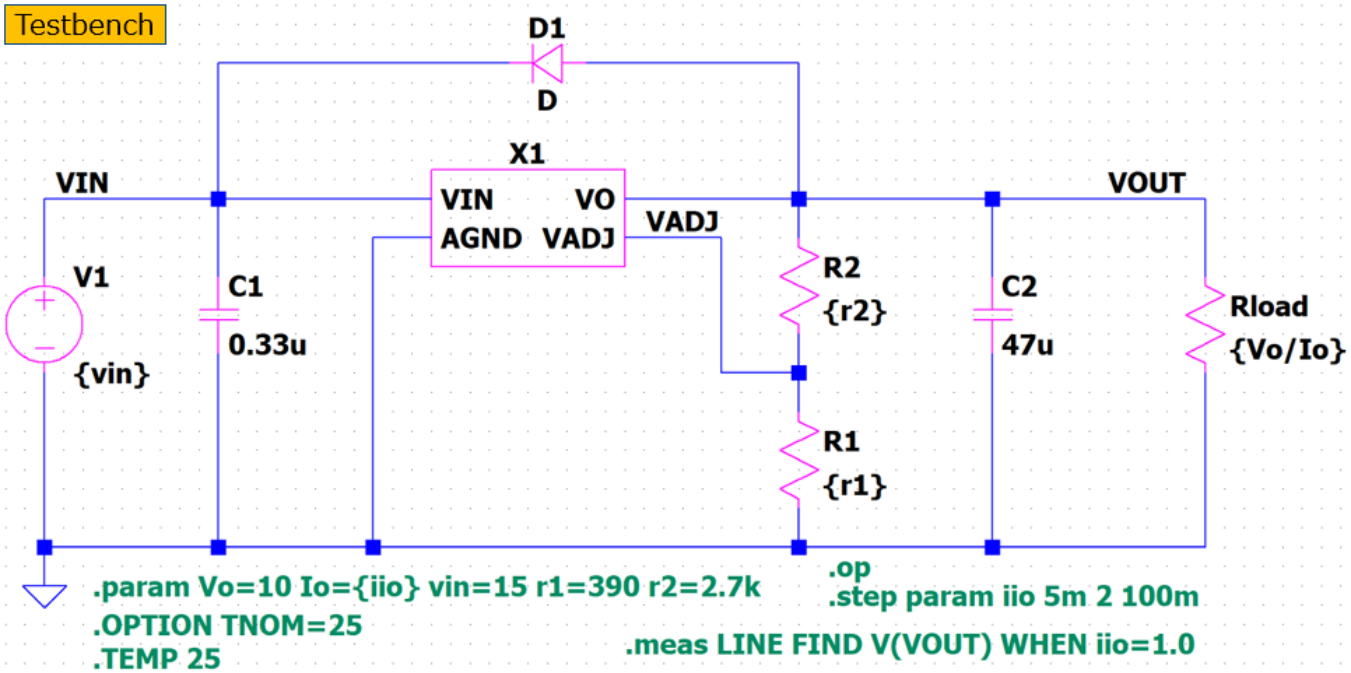
Sim result



Load regulation (Input=15V Output=9.9V IOUT=5mA~1.0A)

Simulation results are following.
Explanatory notes — : simulated

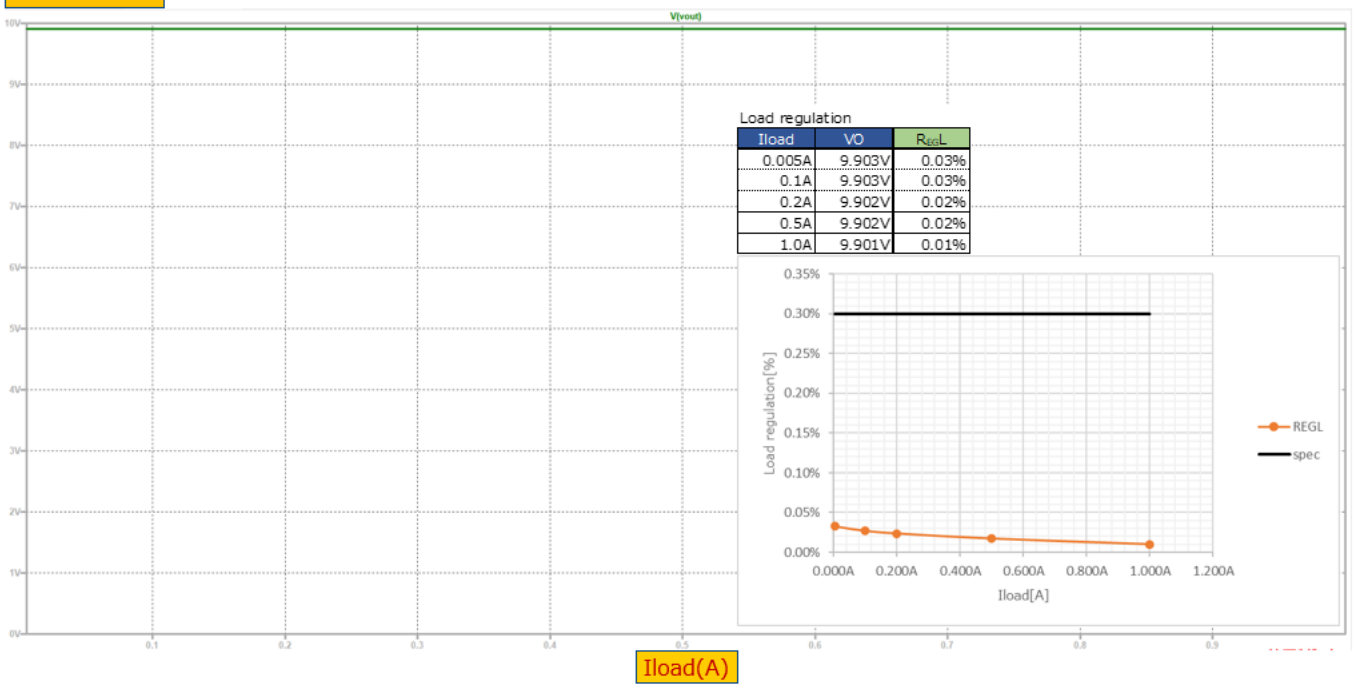
Testbench



Load regulation (Input=15V Output=9.9V IOUT=5mA~1.0A)

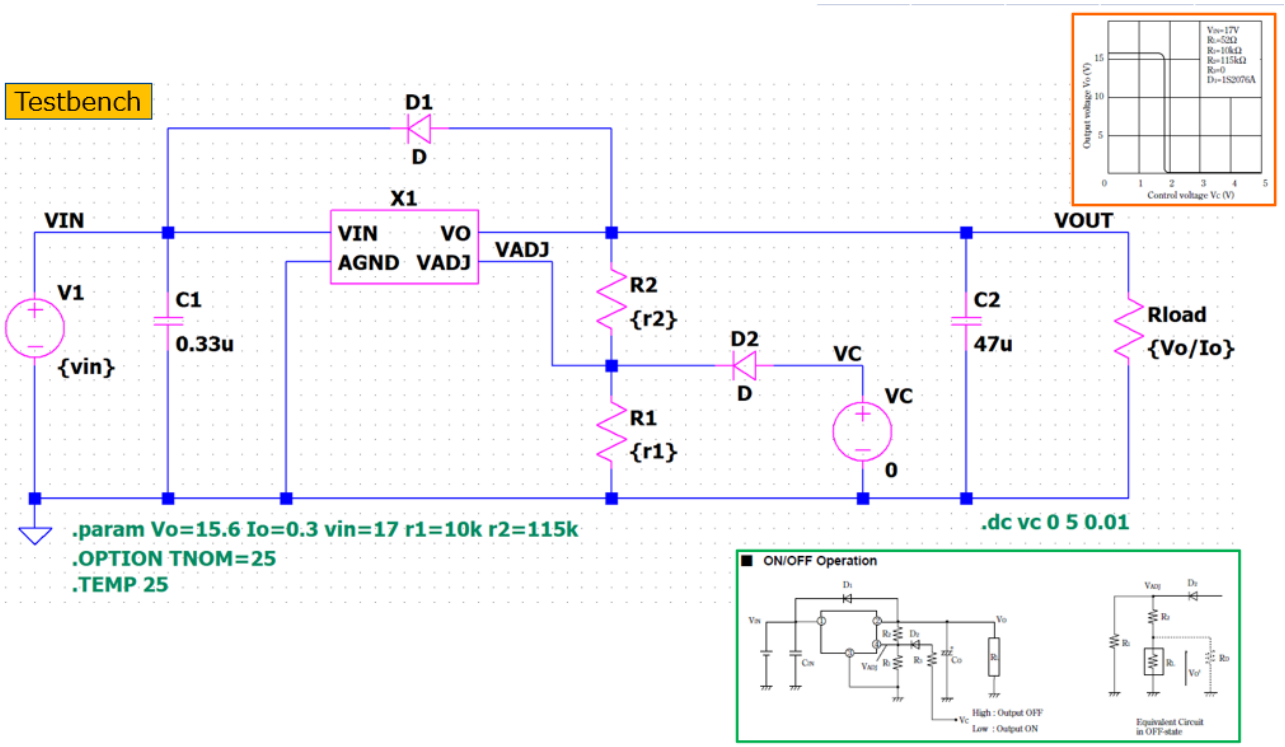
Simulation results are following.
Explanatory notes — : simulated

Sim result



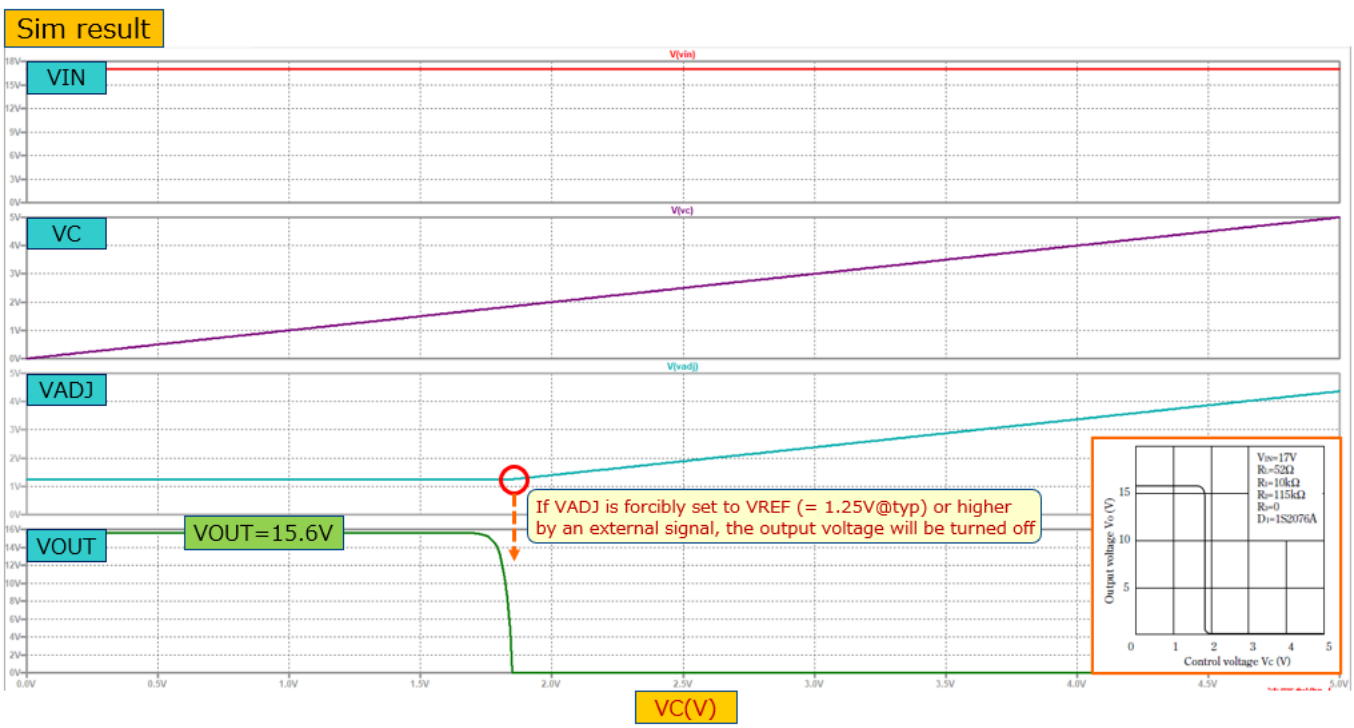
ON/OFF Operation (Input=17V Output=15.6V IOUT=0.3A)

Simulation results are following.
Explanatory notes — : simulated



ON/OFF Operation (Input=17V Output=15.6V IOUT=0.3A)

Simulation results are following.
Explanatory notes — : simulated



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