

Device Modeling Report

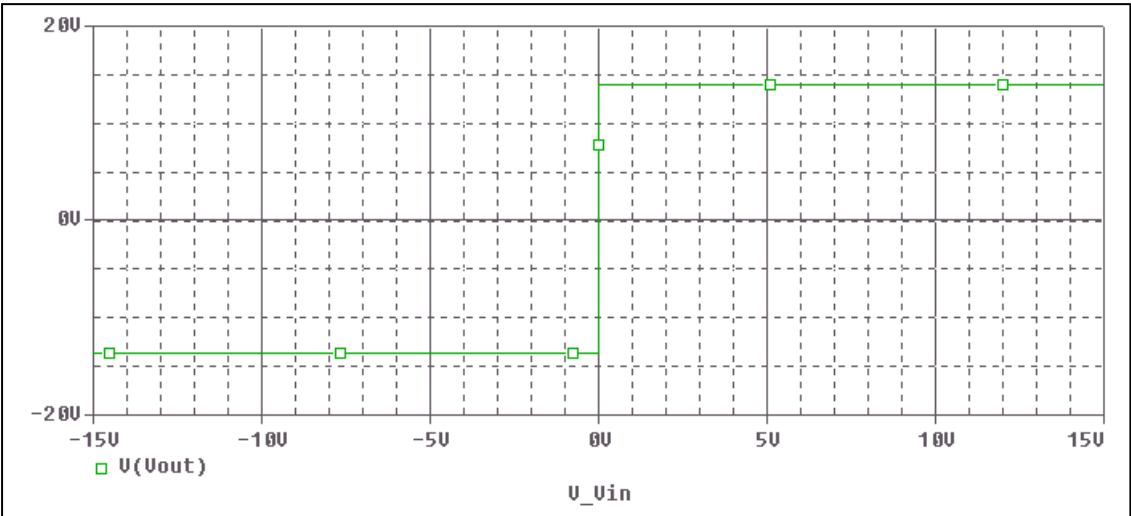
COMPONENTS:MOSFET: OPERATIONAL AMPLIFIER
PART NUMBER:uPC4062C
MANUFACTURER: NEC ELECTRONICS



Bee Technologies Inc.

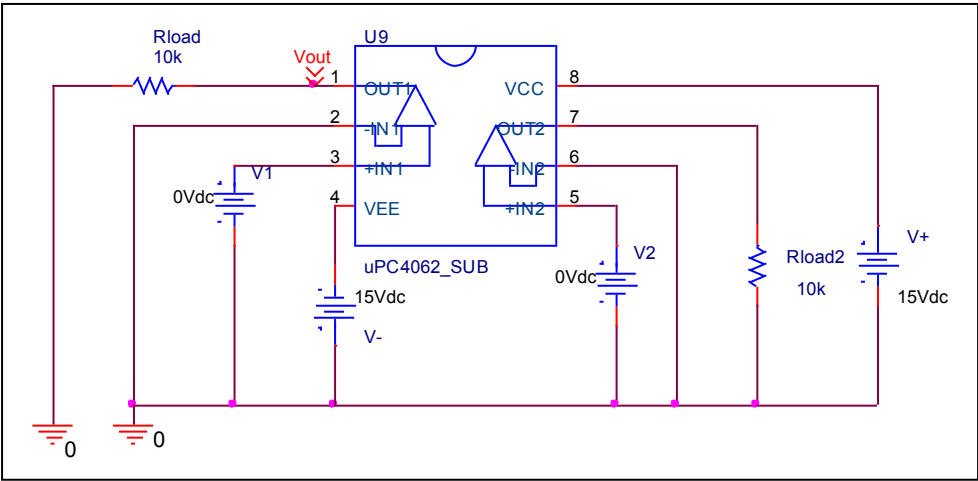
Output Voltage Swing, +Vout and -Vout

Simulation result



These simulation results are compared with $\pm V_{out}$

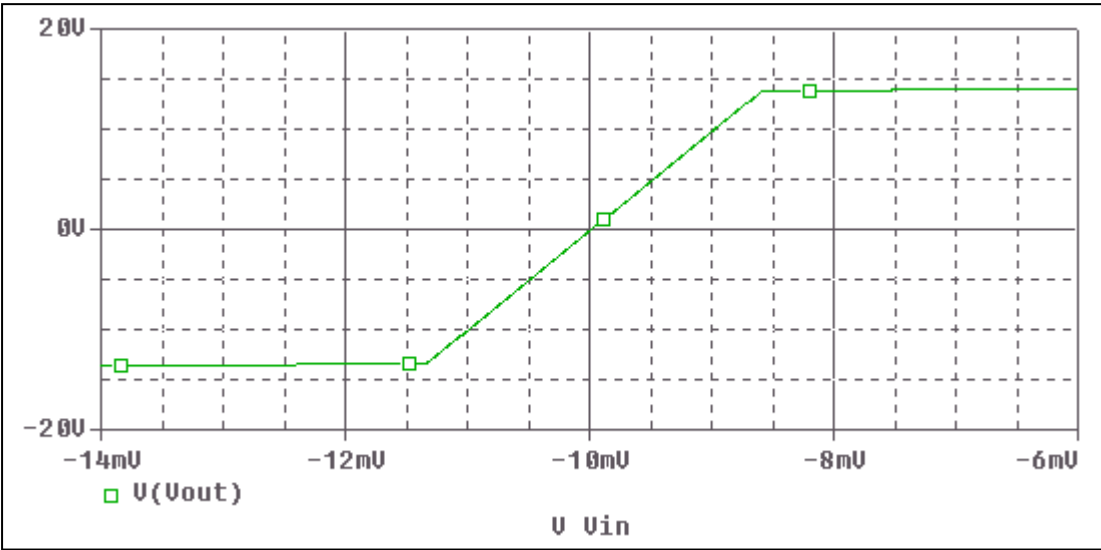
Evaluation circuit



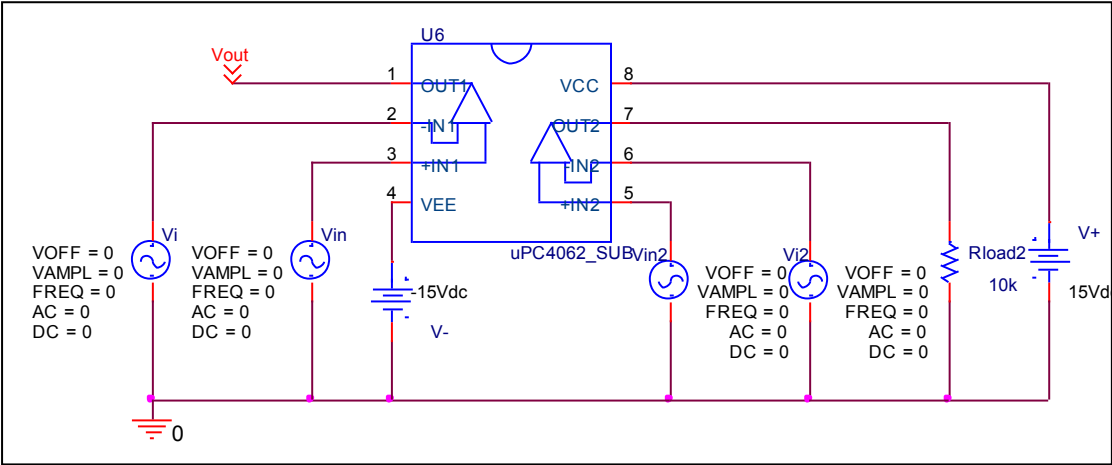
Output Voltage Swing	Data sheet	Simulation	%Error
+Vout(V)	+14	+13.972	0.2
-Vout(V)	-13.6	-13.572	0.205882353

Input Offset Voltage

Simulation result



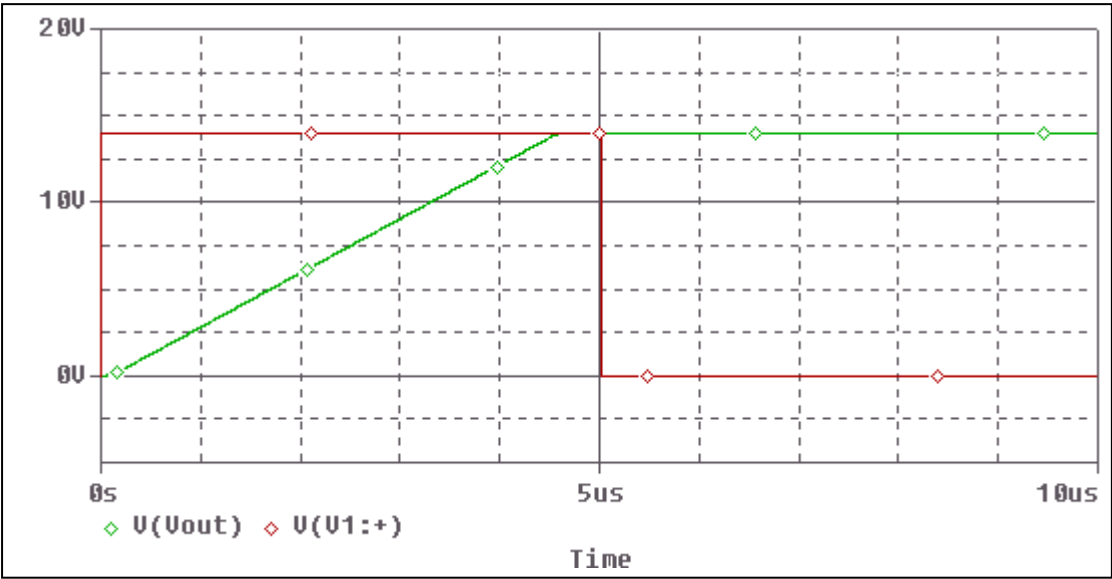
Evaluation circuit



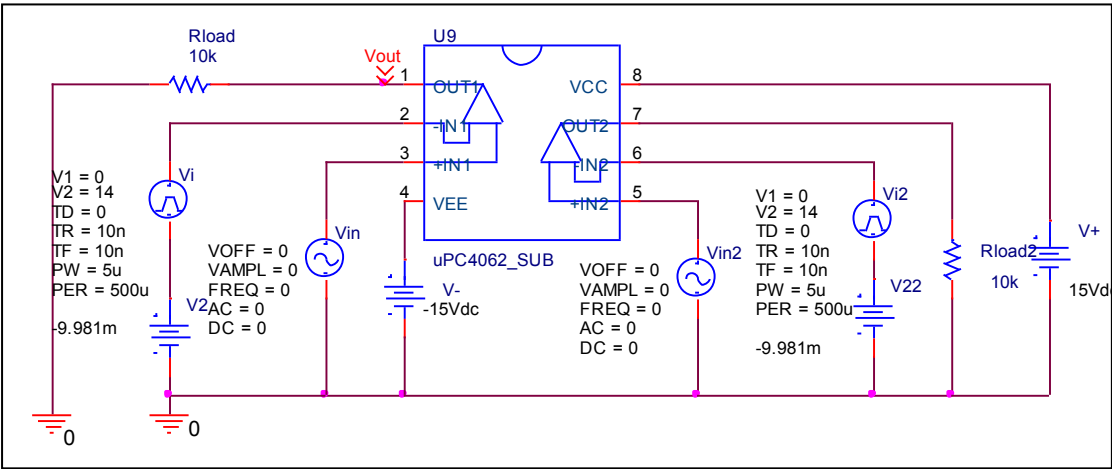
Vos	Measurement		Simulation		Error	
	10	mV	9.981	mV	0.19	%

Slew Rate, +SR, -SR

Simulation result



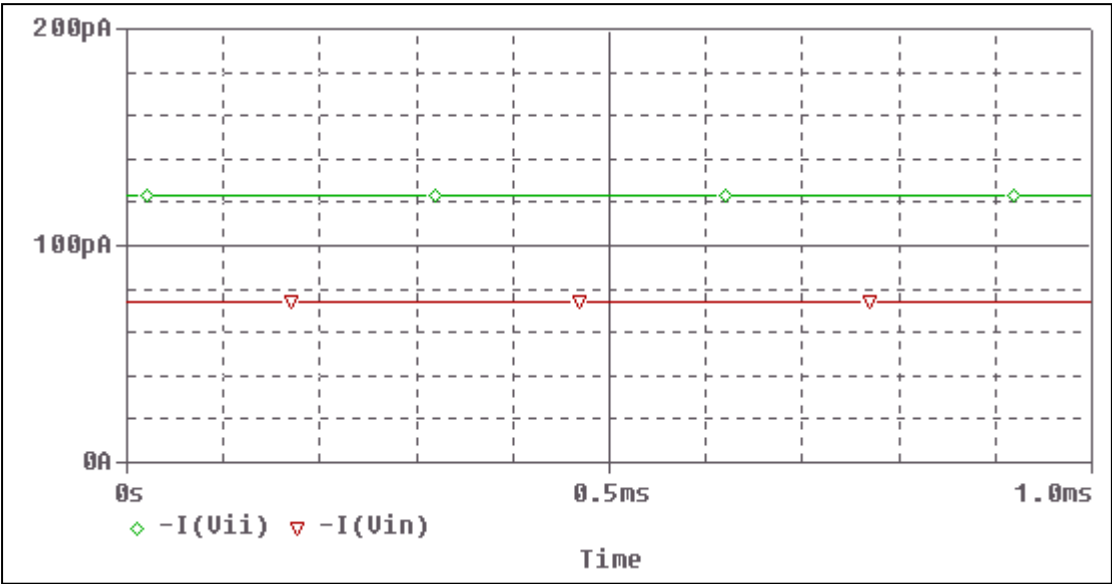
Evaluation circuit



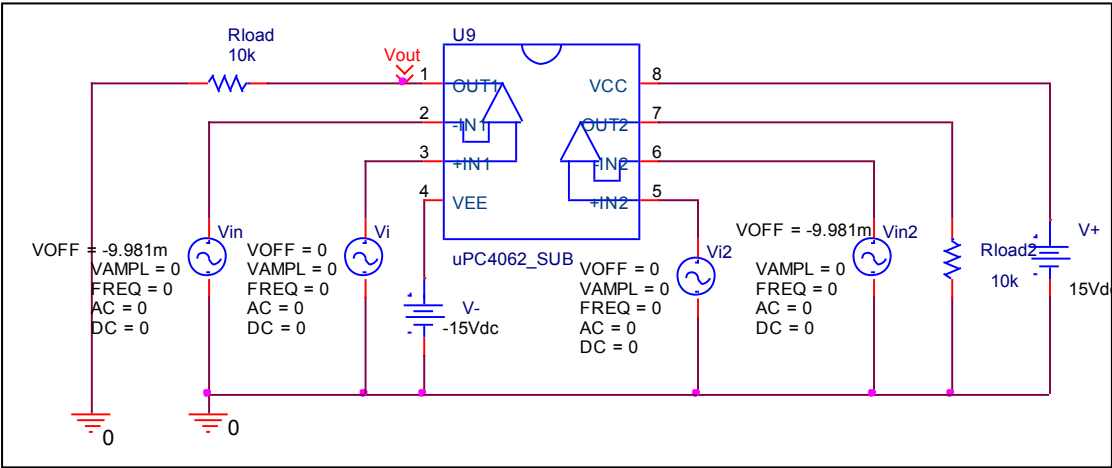
Slew Rate(v/us)	Data sheet	Simulation	%Error
	3V/us	3.124V/us	4.133

Input current Ib, Ibos

Simulation result



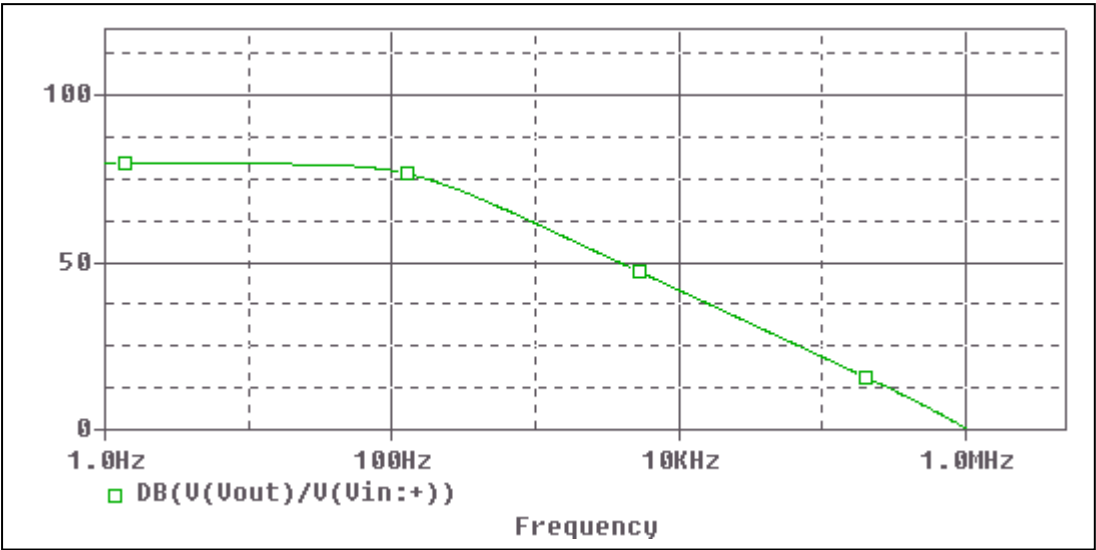
Evaluation circuit



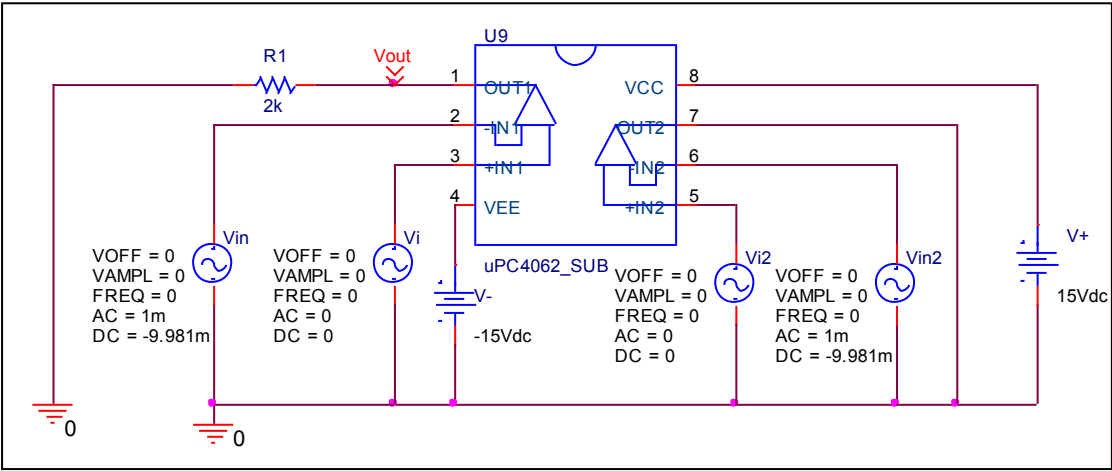
	Data sheet	Simulation	%Error
Ib(pA)	100	98.3	1.7
Ibos(pA)	50	49.014	1.972

Open Loop Voltage Gain vs. Frequency , Av-dc, f-0dB

Simulation result



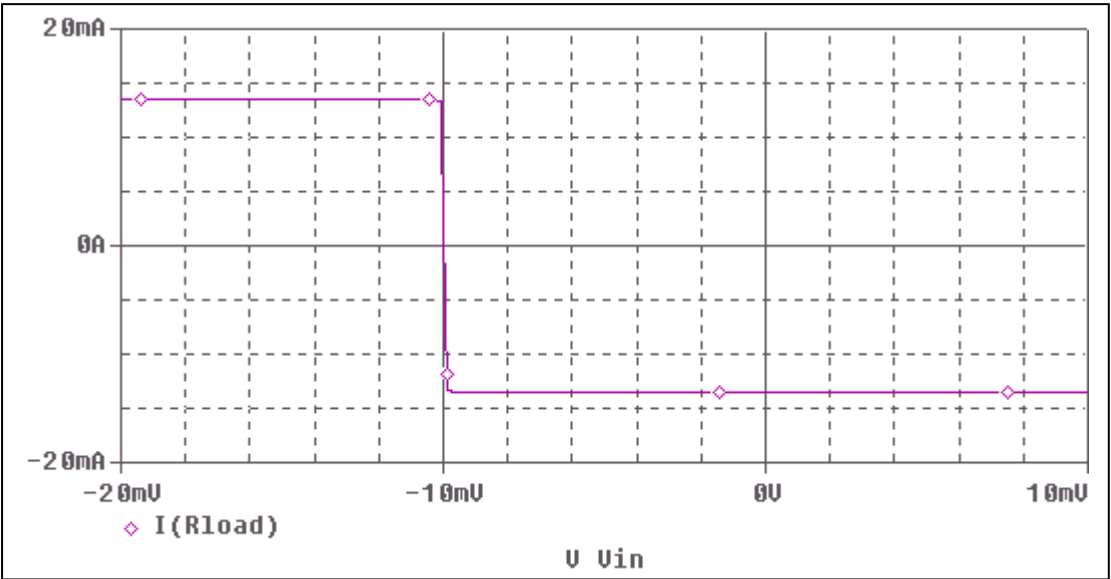
Evaluation circuit



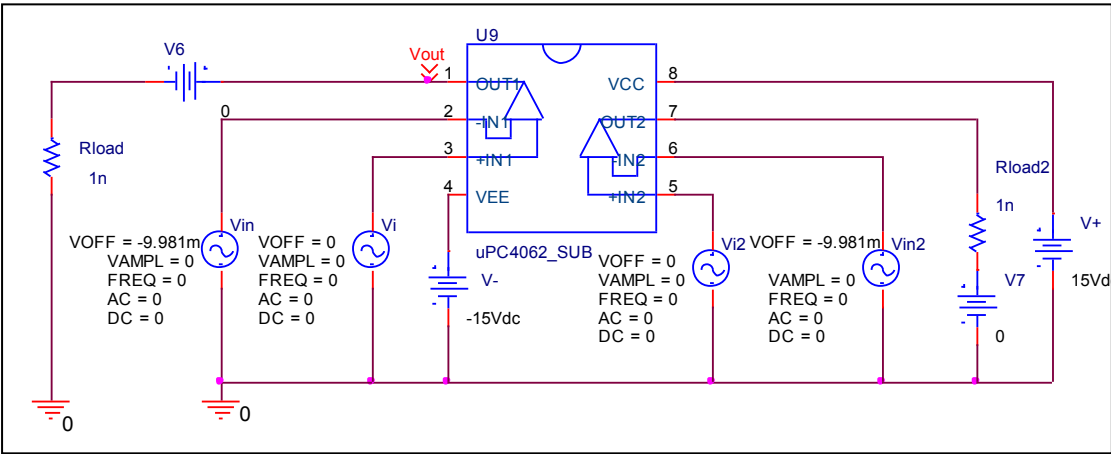
	Data sheet	Simulation	%Error
f-0dB(MHz)	1	1.035	3.5
Av-dc	9000	9549	6.1

Output Short Circuit Current - Ios

Simulation result



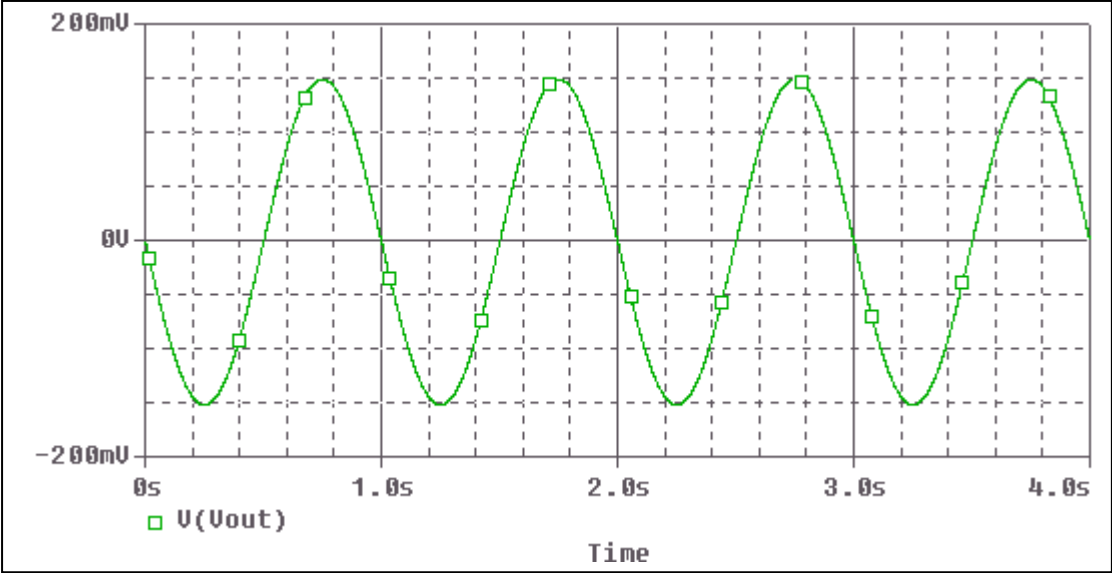
Evaluation circuit



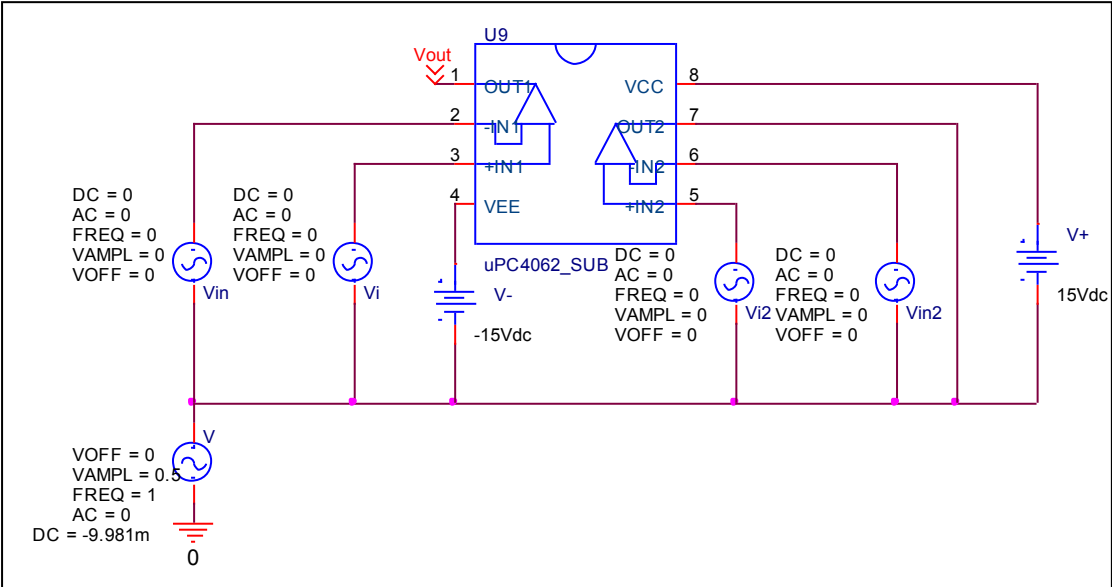
Short Circuit Current	Data sheet	Simulation	%Error
	13mA	13.53mA	4.07

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common mode gain=0.301/1
Common Mode Reject Ratio=9555/0.301=31744

CMRR	Data sheet	Simulation	%Error
	31623	31744	0.382