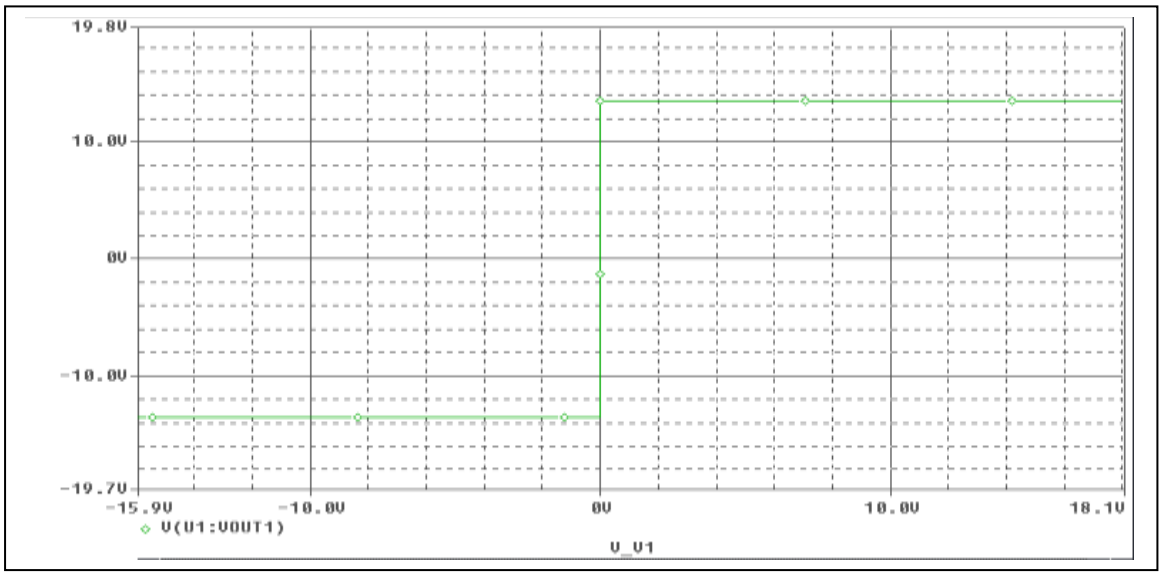
Device Modeling Report

COMPONENTS:MOSFET: OPERATIONAL AMPLIFIER
PART NUMBER:LA6083D
MANUFACTURER:SANYO

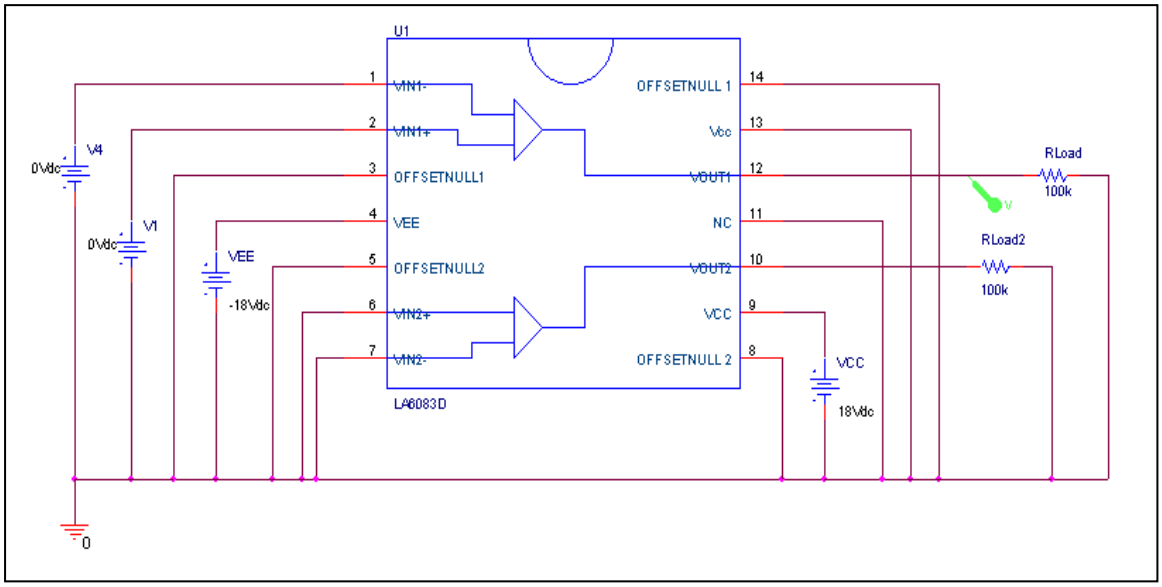
Bee Technologies Inc.

Output Voltage Swing, +Vout and –Vout

Simulation result



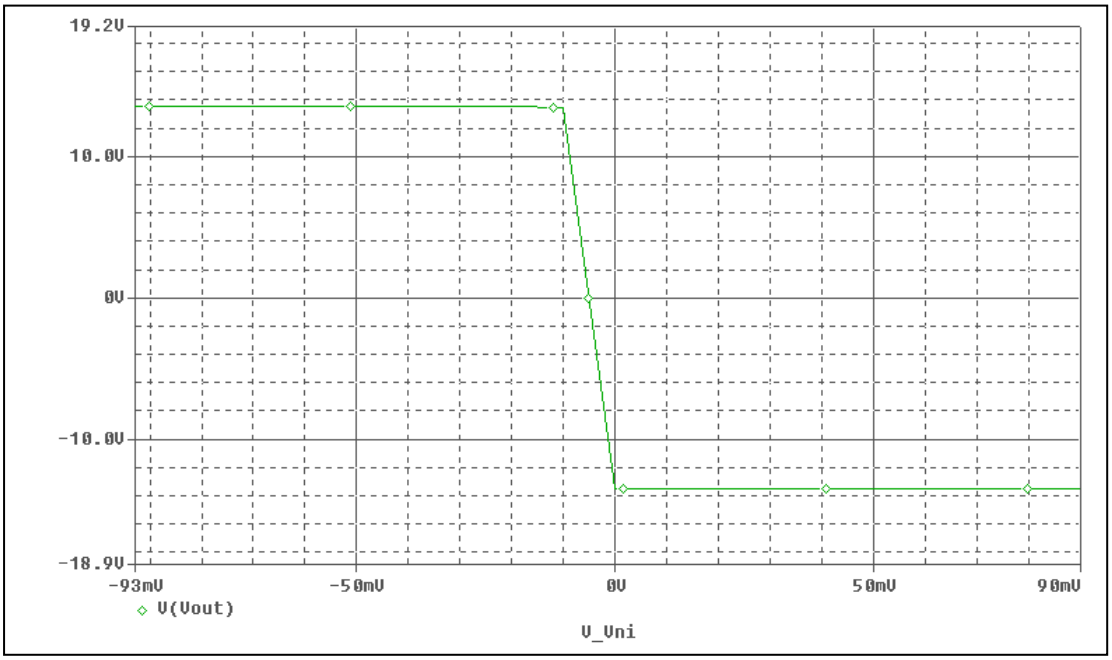
Evaluation circuit



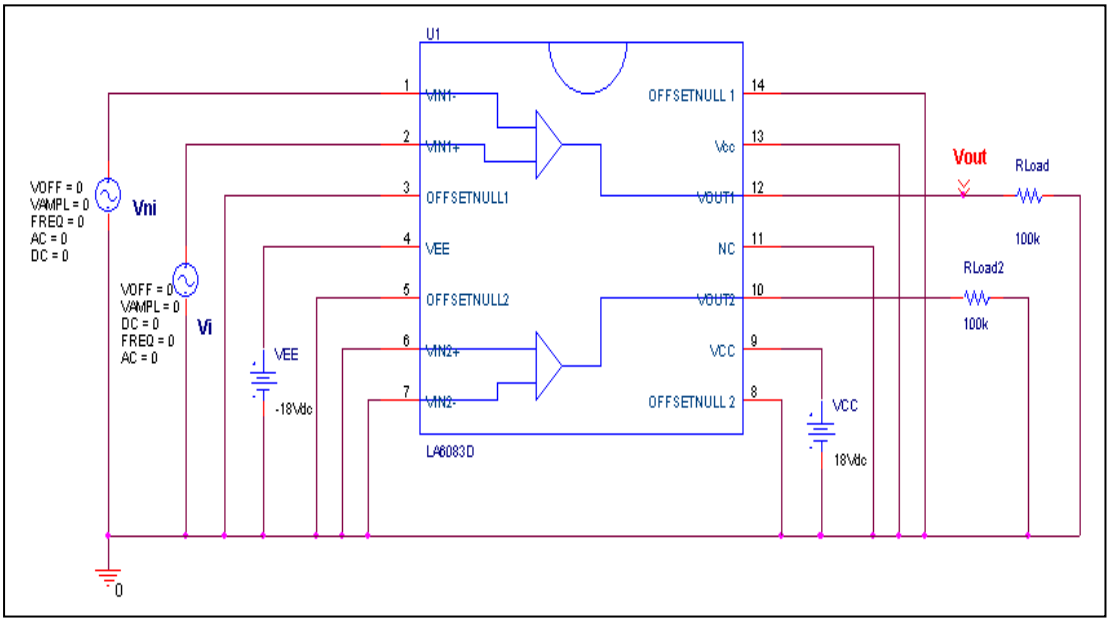
Output Voltage Swing	Measurement	Simulation	%Error
+Vout(V)	+13.5	+13.532	0.237
-Vout(V)	-13.5	-13.532	0.237

Input Offset Voltage

Simulation result



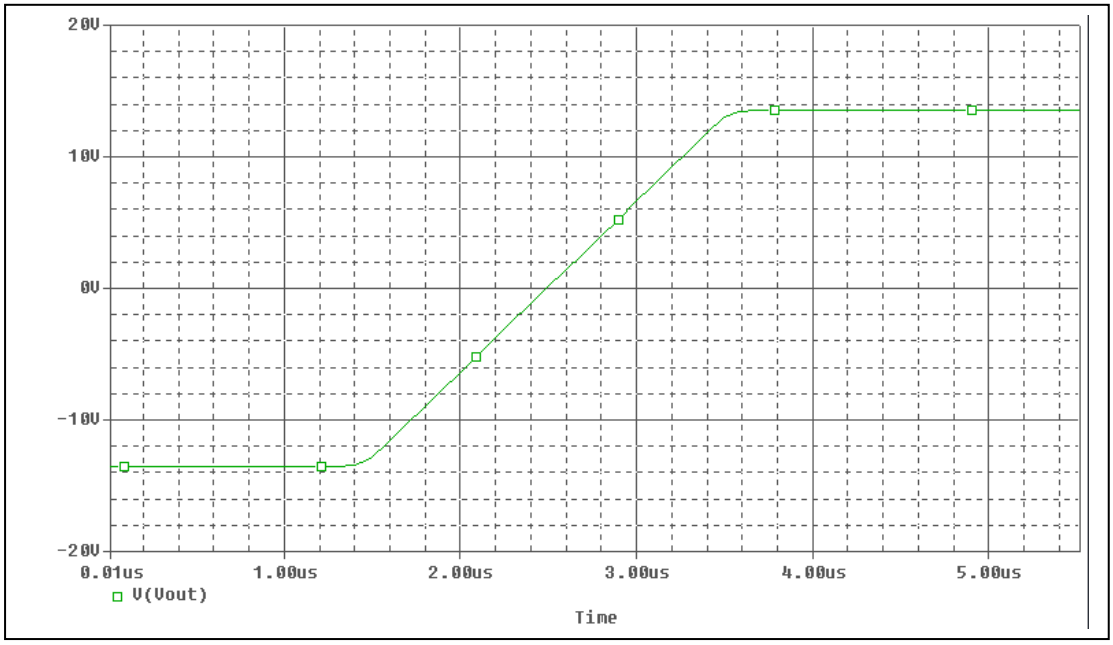
Evaluation circuit



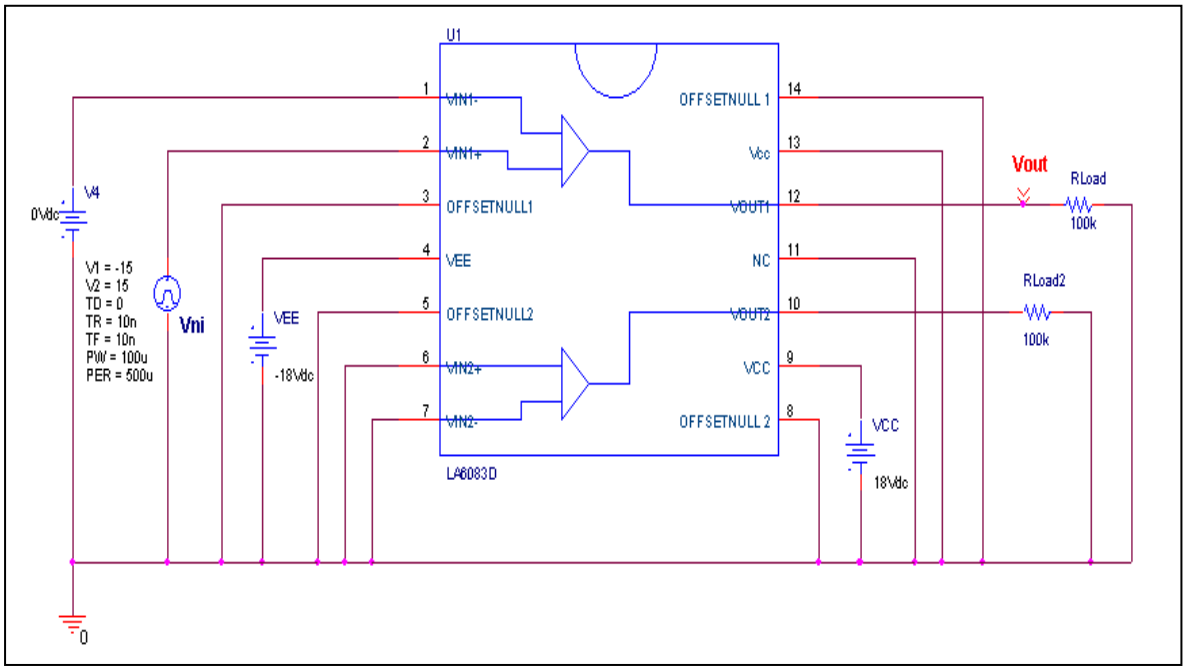
	Measurement		Simulation		Error
Vos	5	mV	4.9891	mV	0.218

Slew Rate, +SR, -SR

Simulation result



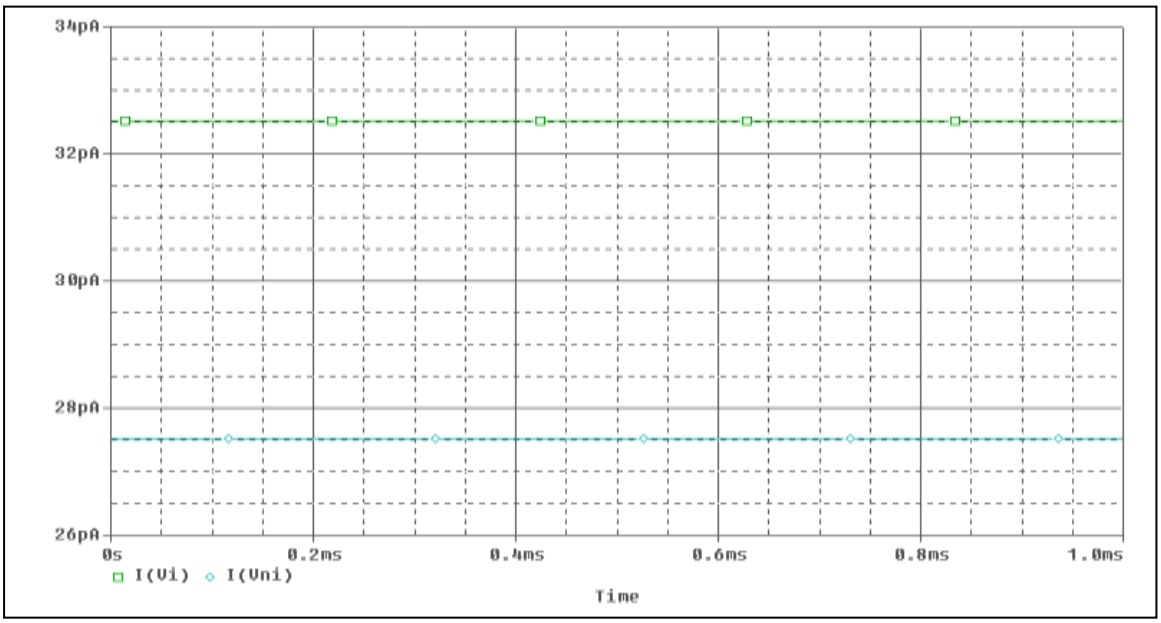
Evaluation circuit



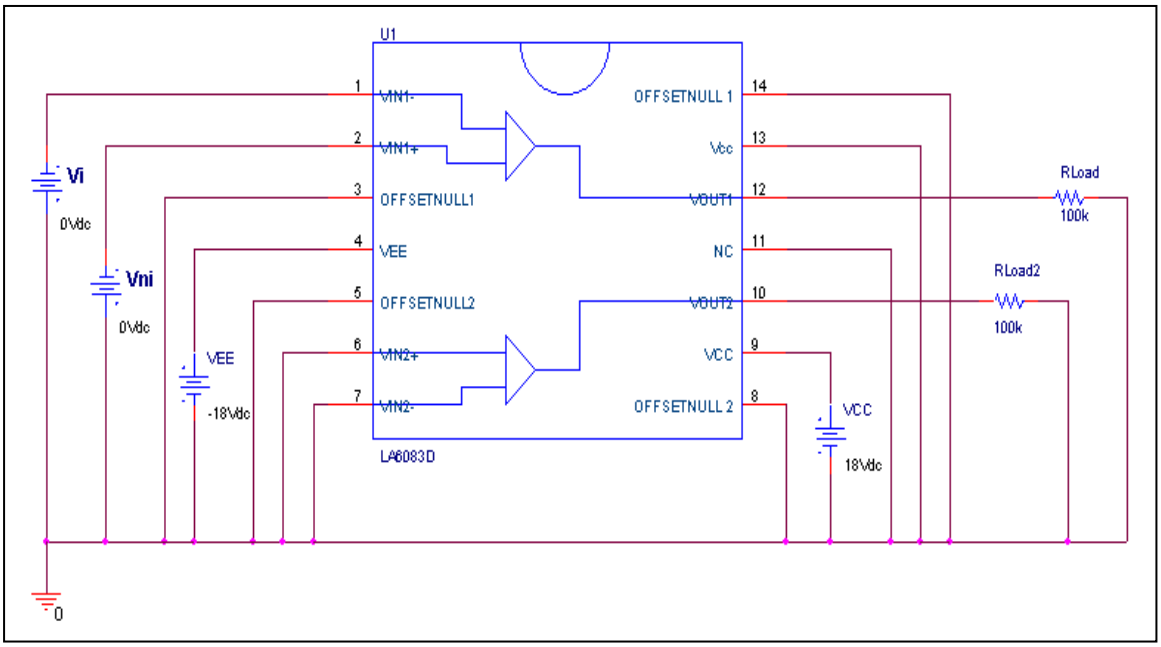
Slew Rate(v/us)	Measurement	Simulation	%Error
	13	13.052	0.4

Input current Ib, Ibos

Simulation result



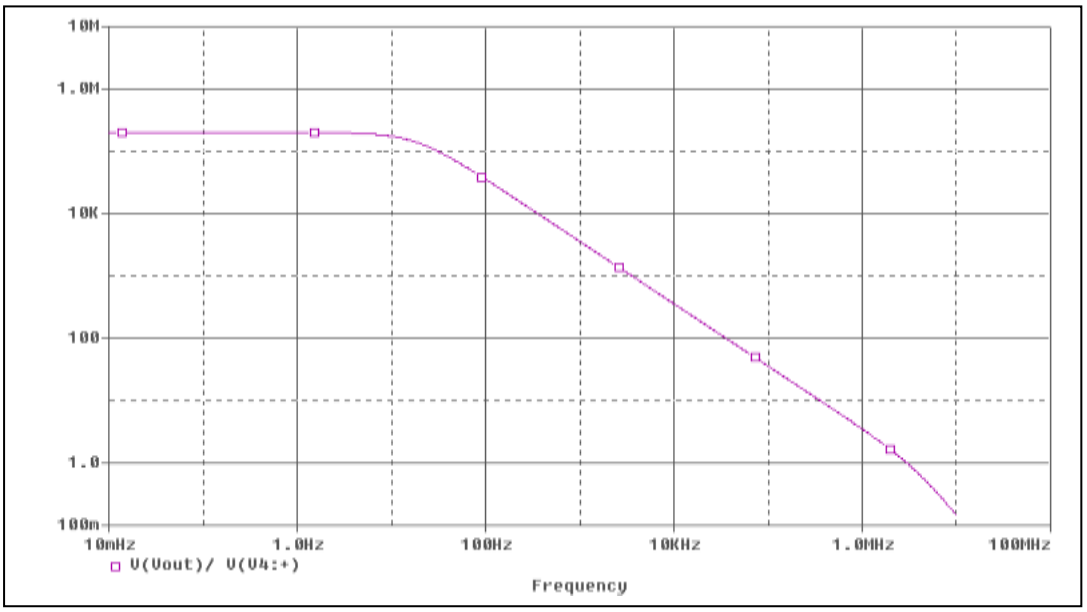
Evaluation circuit



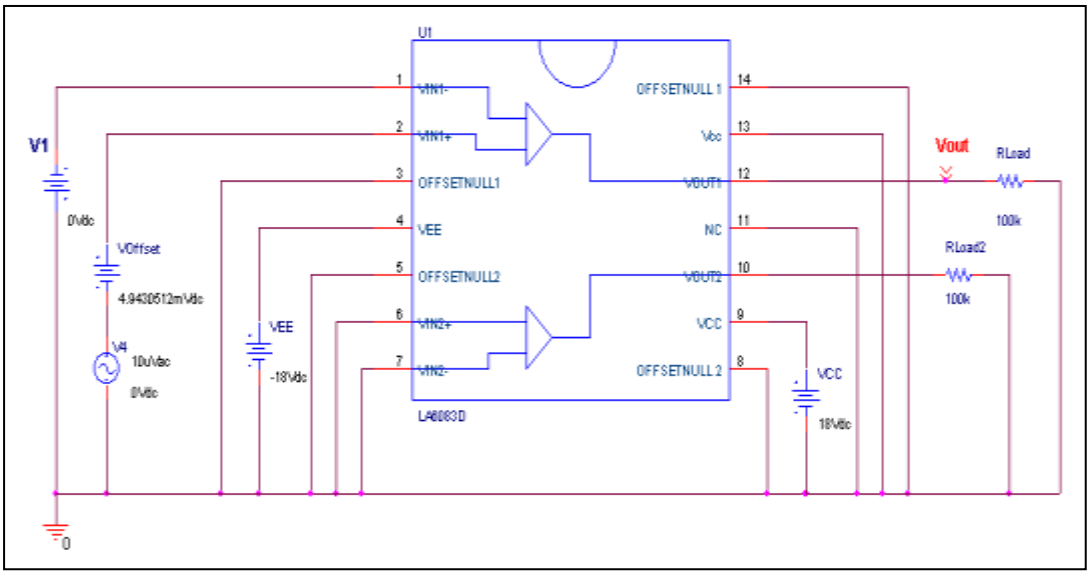
	Measurement	Simulation	%Error
Ib(pA)	30	30.0195	0.065
Ibos(pA)	5	5.007	0.140

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

Simulation result



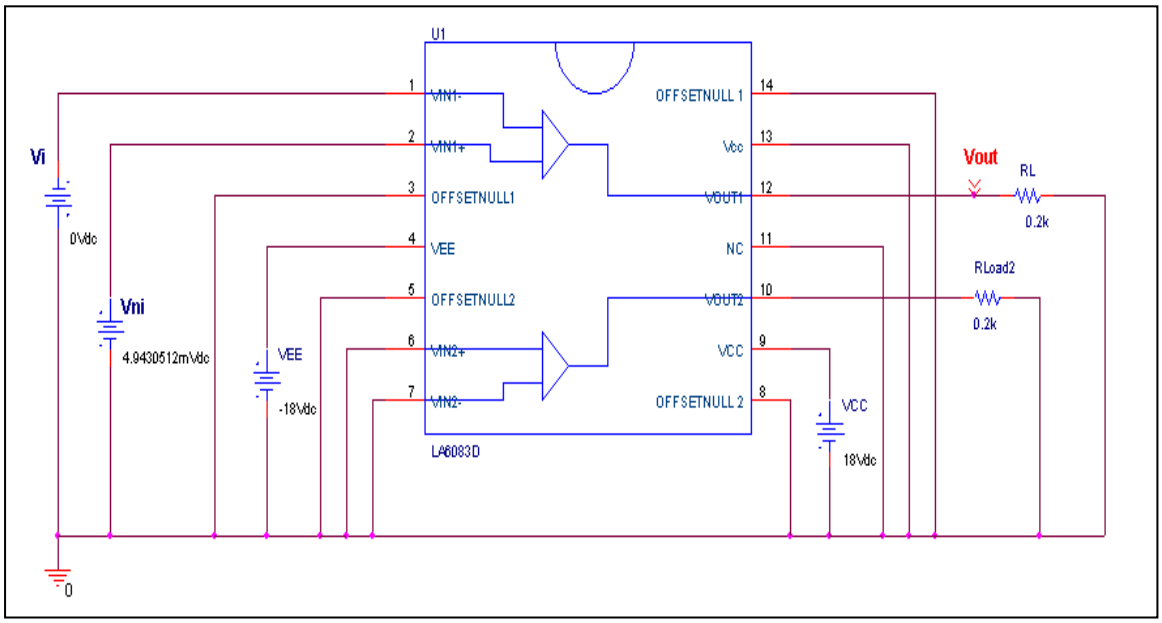
Evaluation circuit



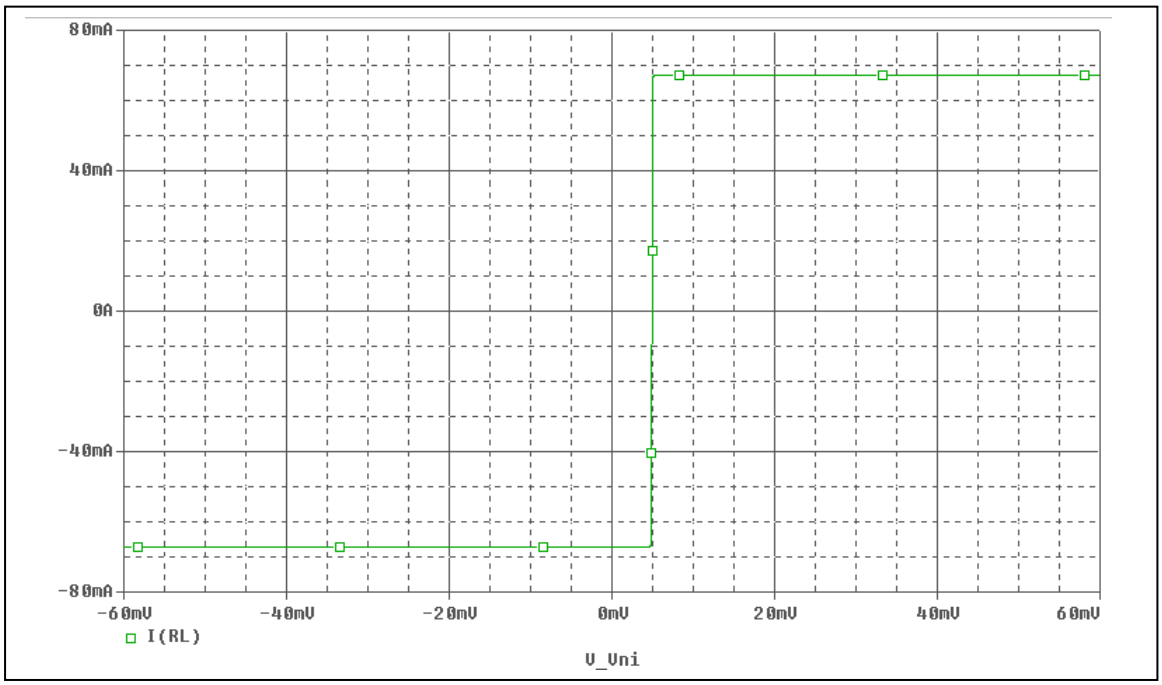
	Measurement	Simulation	Error%
Av-dc(V/mV)	200	199.202	0.399
f-odb(MHz)	3	3.0358	1.193

Output Short Circuit Current - Ios

Evaluation circuit



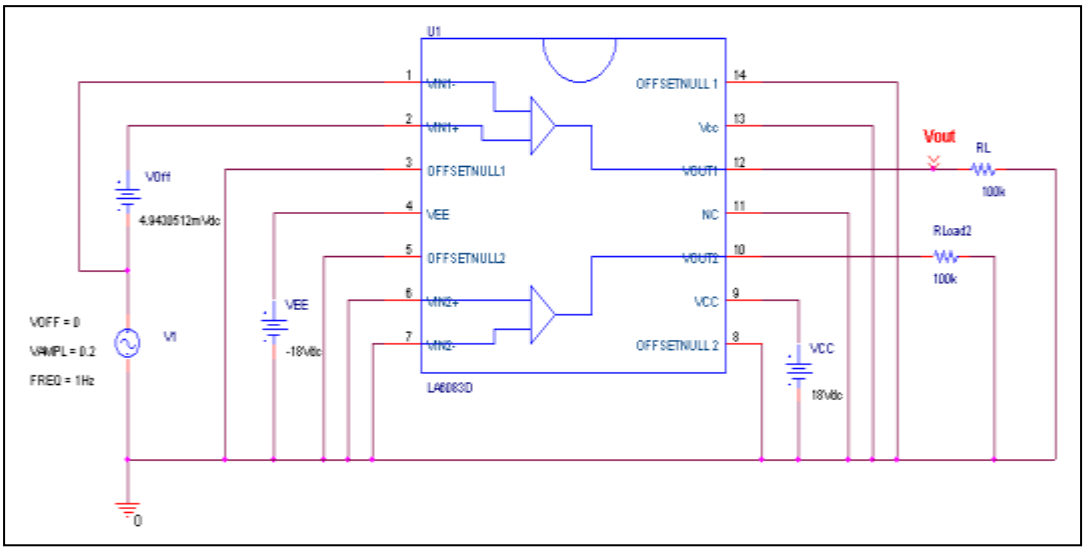
Simulation result



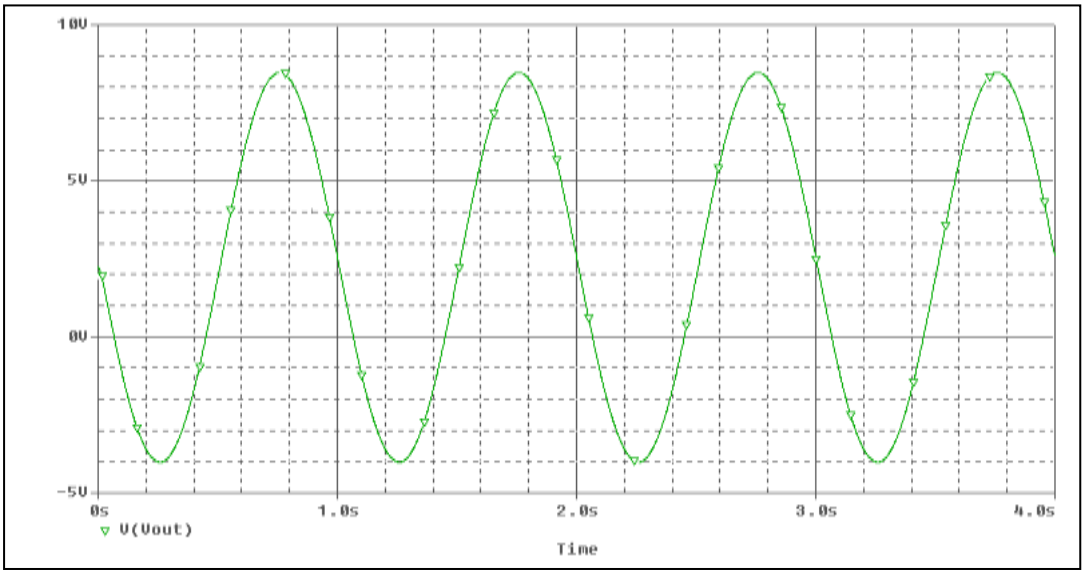
Short Circuit Current	Measurement	Simulation	%Error
	67.5mA	67.109mA	0.579

Common-mode rejection ratio - CMRR

Evaluation circuit



Simulation result



Common mode gain=12.460/0.4 = 31.15
Common Mode Reject Ratio=199202/31.15 = 6394.92
Change to dB = 20log(6394.92) = 76.1 dB

Compare Measurement vs. Simulation

	Measurement	Simulation	%Error
CMRR(dB)	76	76.1	0.131