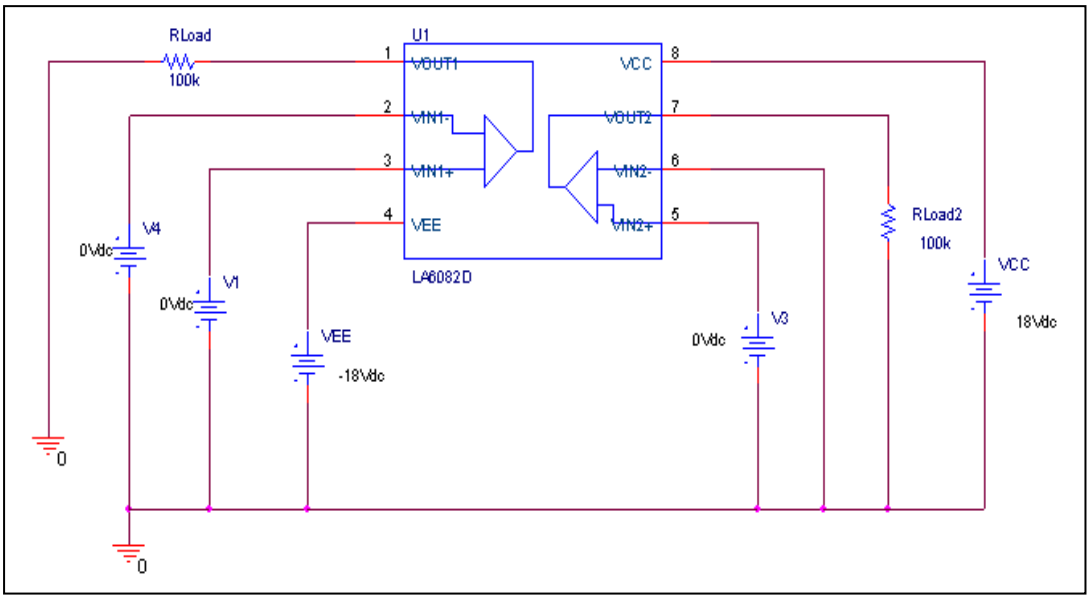
Device Modeling Report

COMPONENTS:MOSFET: OPERATIONAL AMPLIFIER
PART NUMBER:LA6082D
MANUFACTURER:SANYO

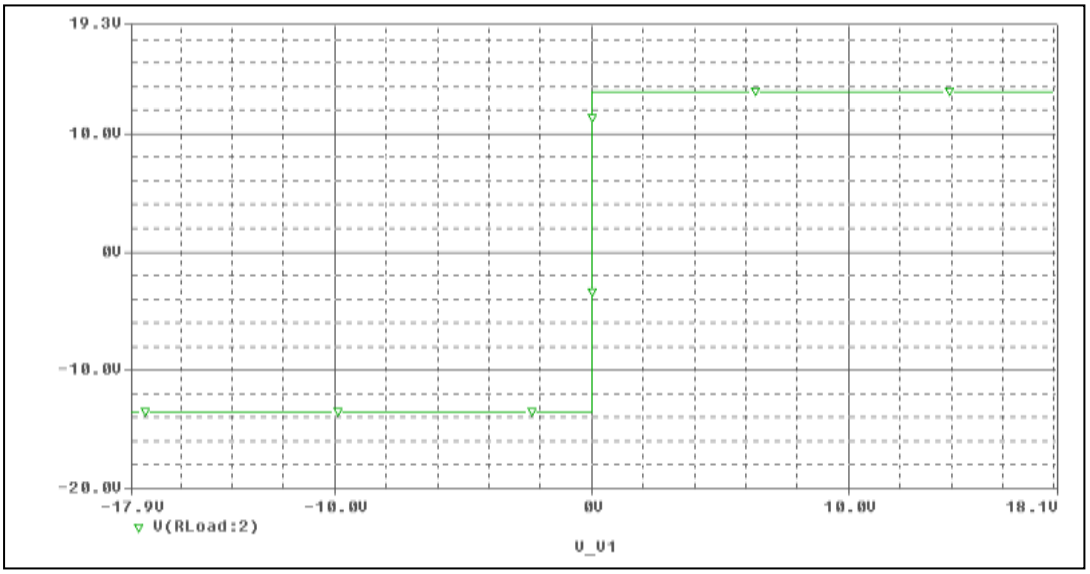
Bee Technologies Inc.

Output Voltage Swing, +Vout and –Vout

Evaluation circuit



Simulation result

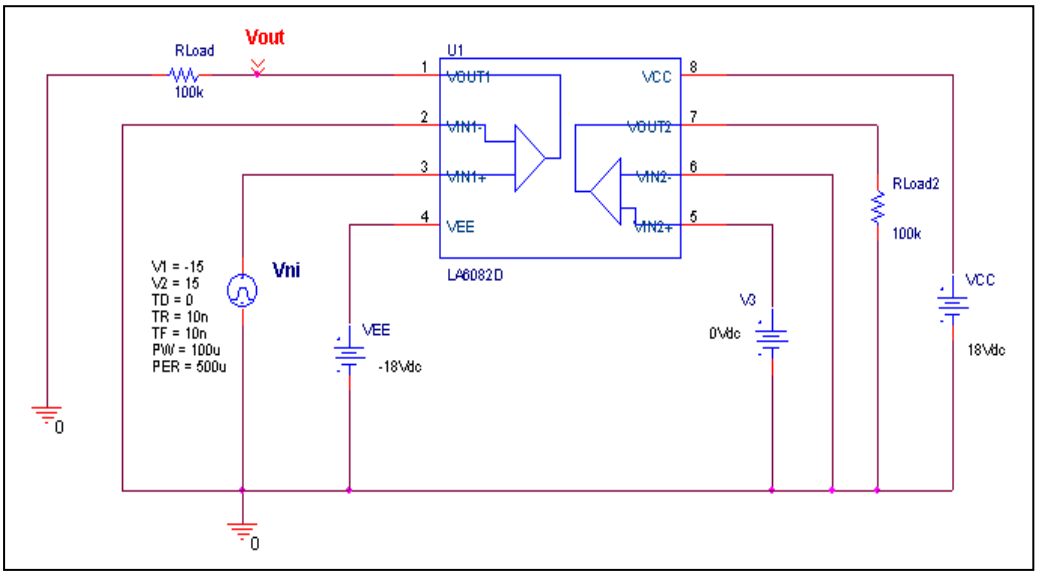


Compare Measurement vs. Simulation

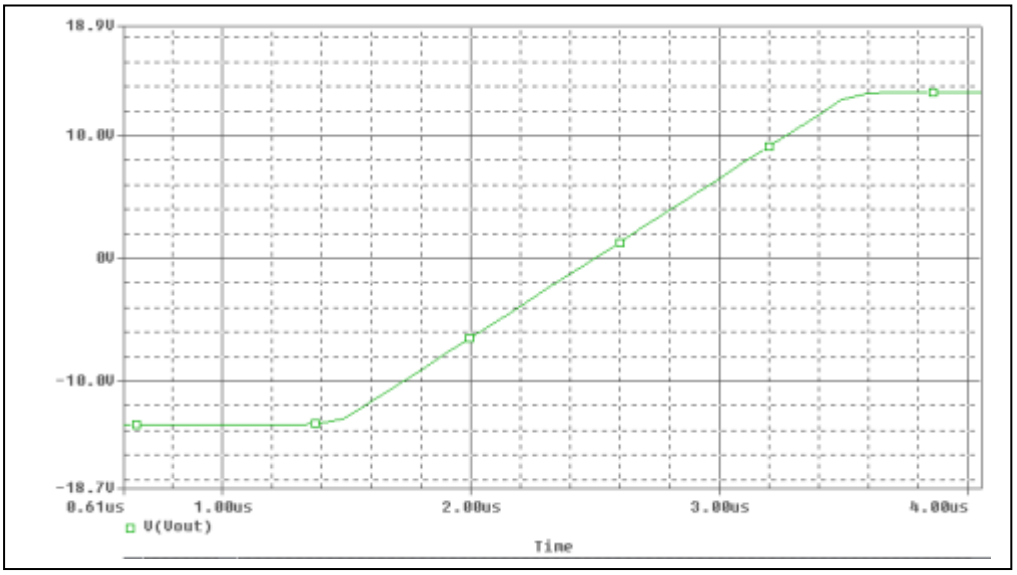
Output Voltage Swing	Measurement	Simulation	%Error
+Vout(V)	+13.5	+13.532	0.237
-Vout(V)	-13.5	-13.532	0.237

Slew Rate, +SR, -SR

Evaluation circuit



Simulation result

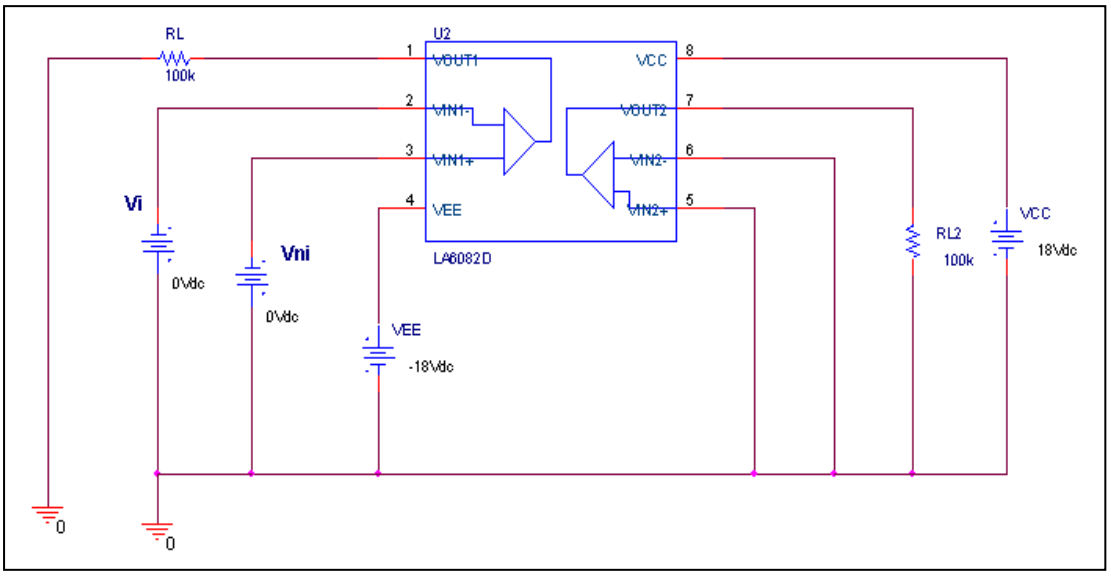


Compare Measurement vs. Simulation

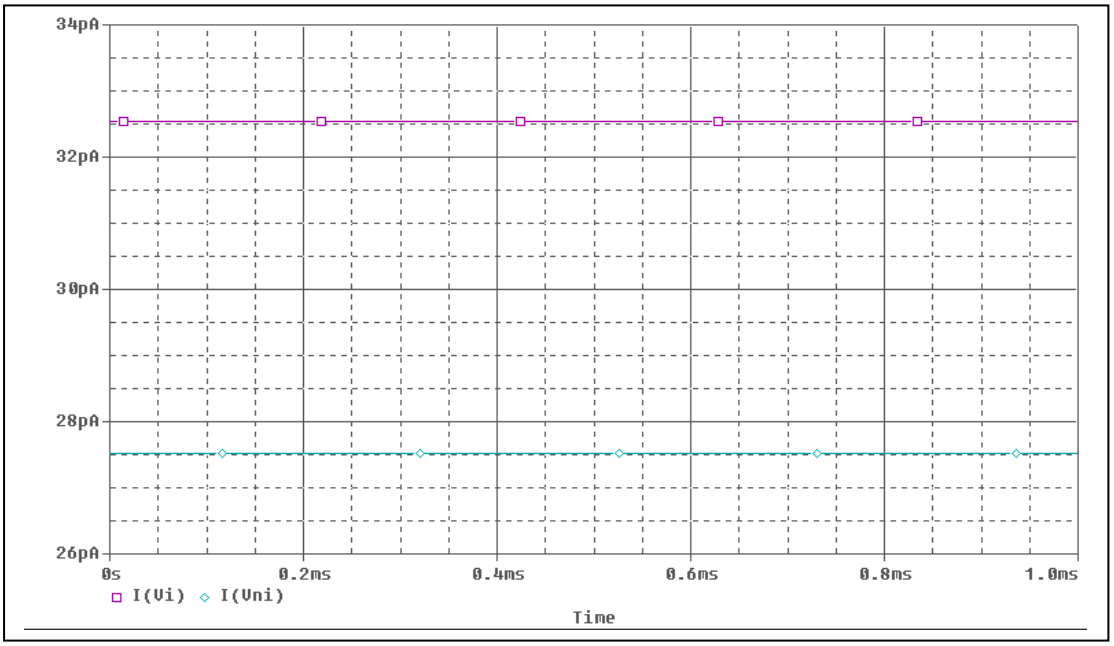
Slew Rate(v/us)	Measurement	Simulation	%Error
	13	13.055	0.423

Input current Ib, Ibos

Evaluation circuit



Simulation result

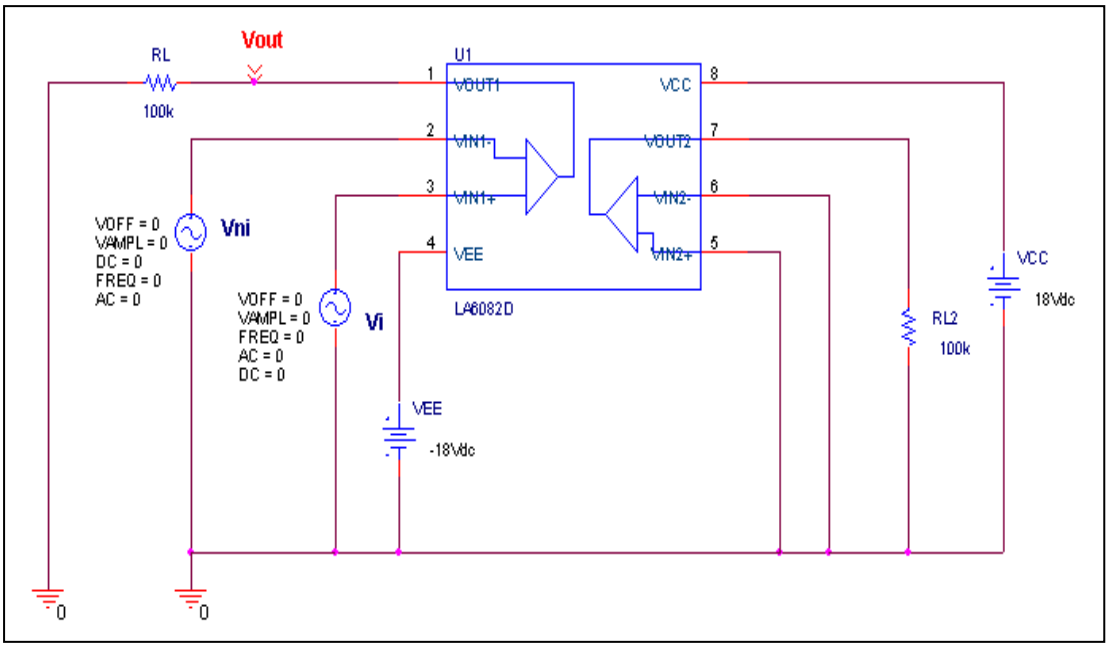


Compare Measurement vs. Simulation

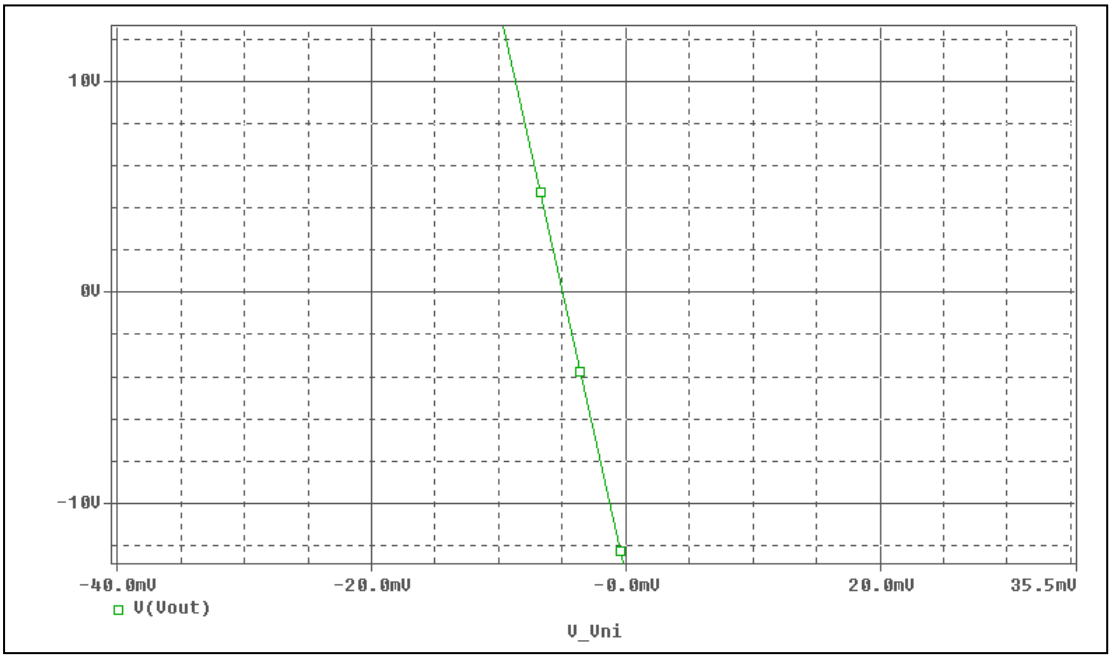
	Measurement	Simulation	%Error
Ib(pA)	30	30.0305	0.102
Ibos(pA)	5	5.007	0.140

Input Offset Voltage

Evaluation circuit



Simulation result

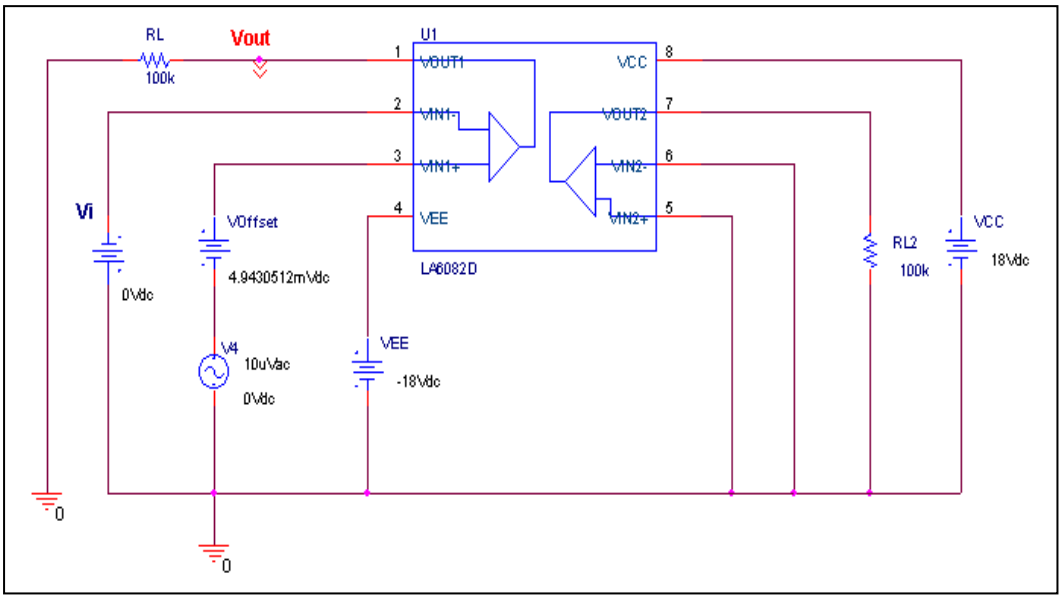


Compare Measurement vs. Simulation

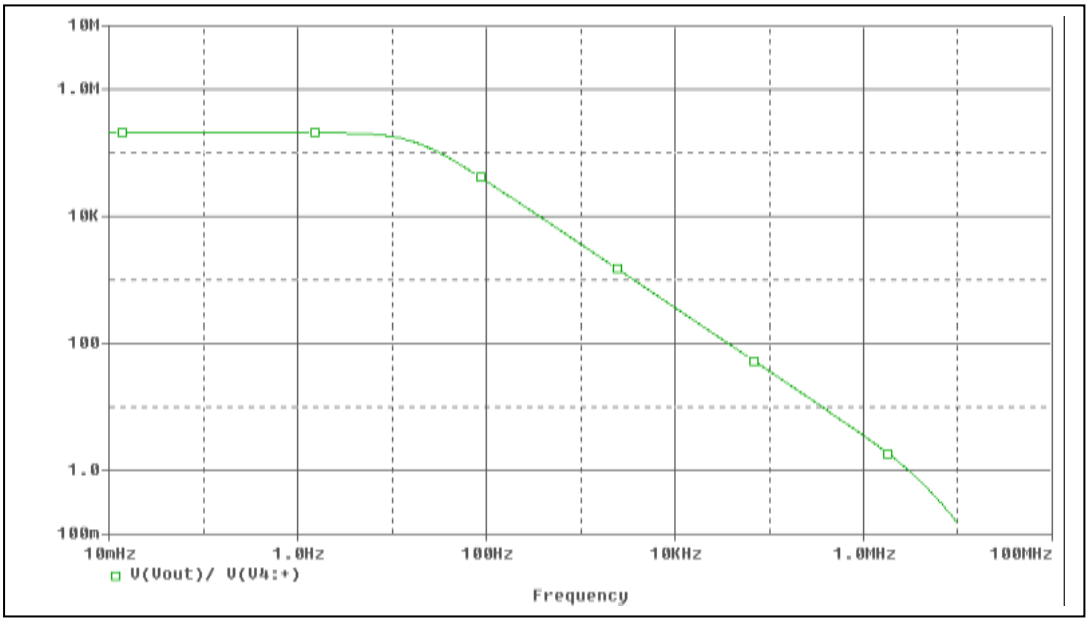
	Measurement		Simulation		Error	
Vos	5	mV	5.008	mV	0.16	%

Open Loop Voltage Gain(DC) and Unity Gain

Evaluation circuit



Simulation result

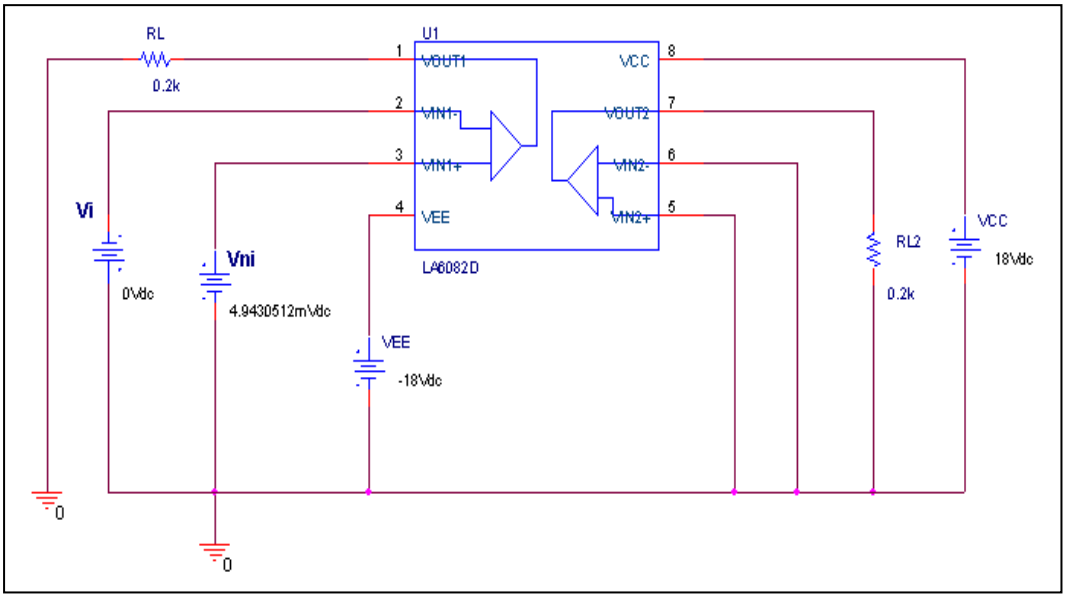


Compare Measurement vs. Simulation

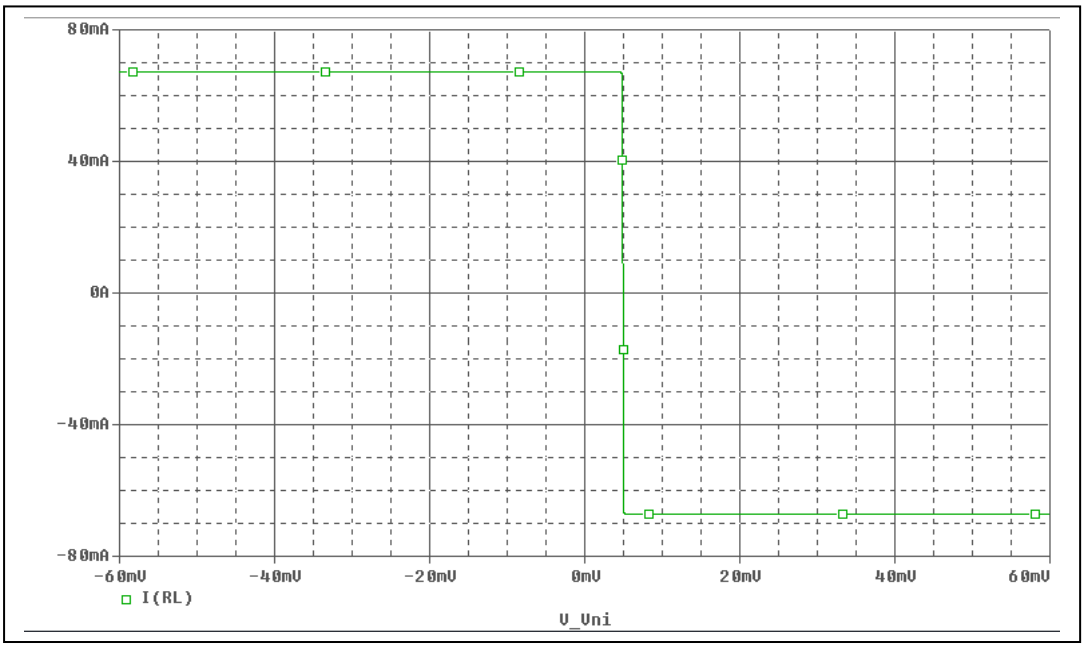
	Measurement		Simulation		Error	
Av-dc	200	V/mV	207.690	V/mV	3.845	%
f-odb	3	MHz	3.0358	MHz	1.193	%

Output Short Circuit Current - Ios

Evaluation circuit



Simulation result

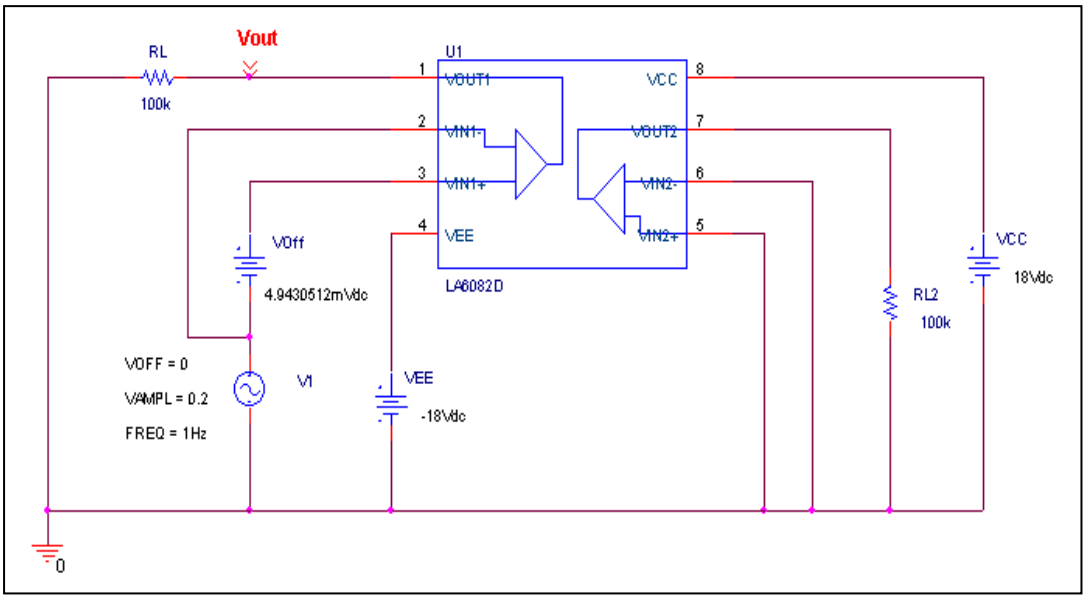


Compare Measurement vs. Simulation

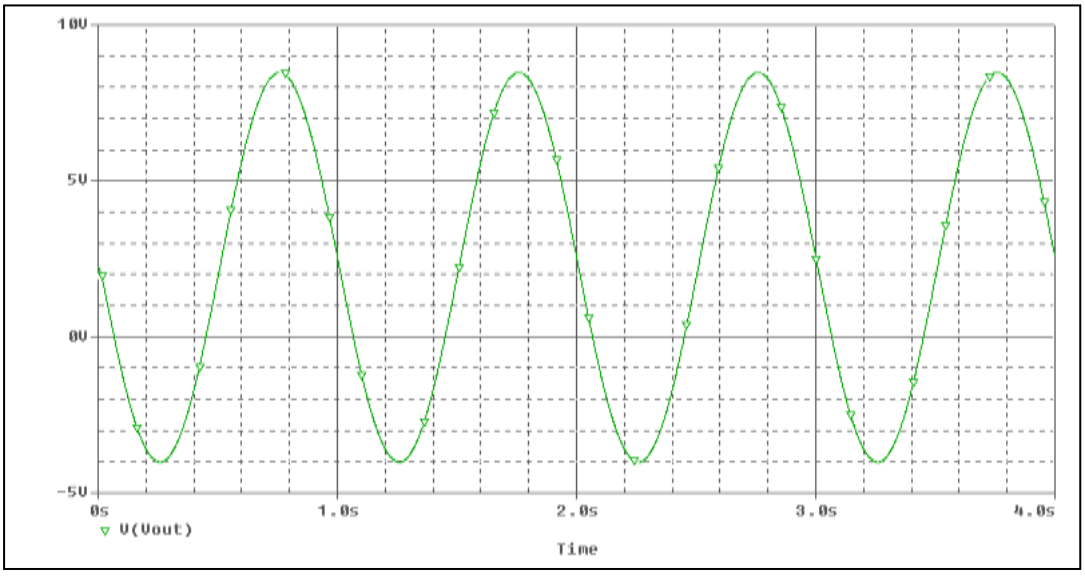
	Measurement	Simulation	%Error
Short Circuit Current	67.5	67.109	0.579

Common-mode rejection ratio - CMRR

Evaluation circuit



Simulation result



Common mode gain=12.990/0.4 =32.475
Common Mode Reject Ratio=207690/32.475=6395
Change to dB =20log(6395) =76.1 dB

Compare Measurement vs. Simulation

	Measurement	Simulation	%Error
CMRR(dB)	76	76.1	0.131