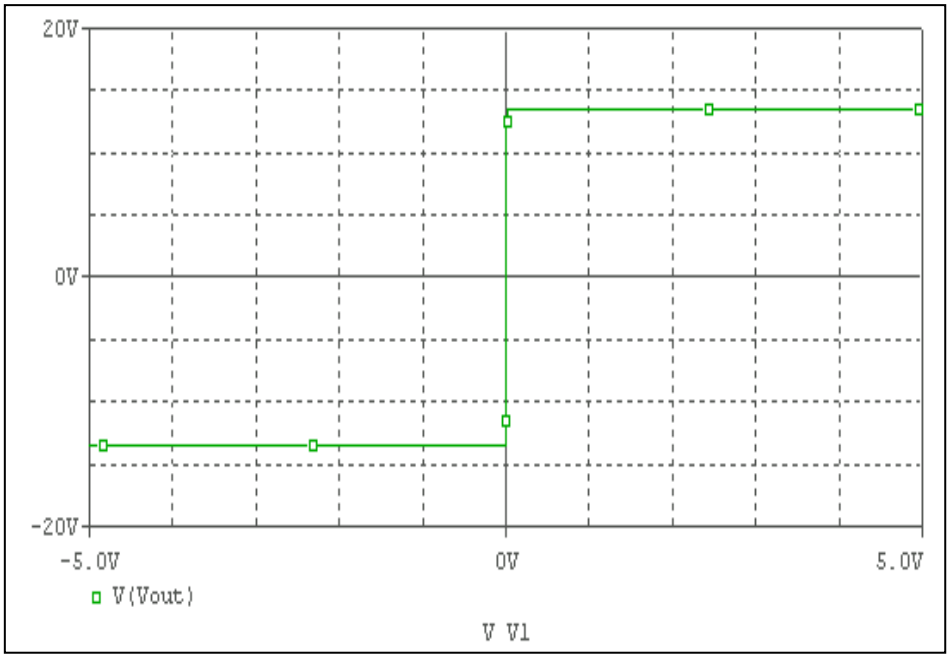
Device Modeling Report

COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER:NJM072B
MANUFACTURER: NEW JAPAN RADIO CO.,LTD

Bee Technologies Inc.

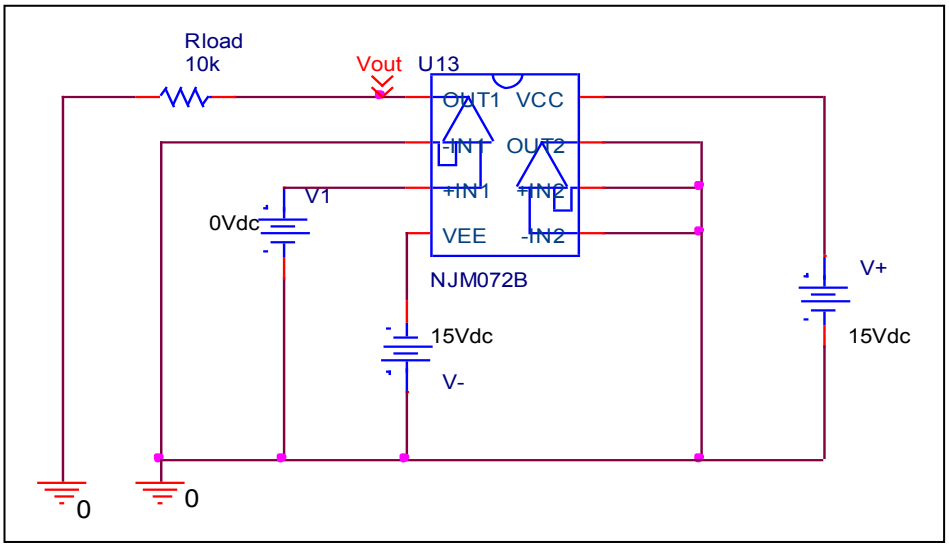
Output Voltage Swing, +Vout and –Vout

Simulation result



These simulation results are compared with ±Vout

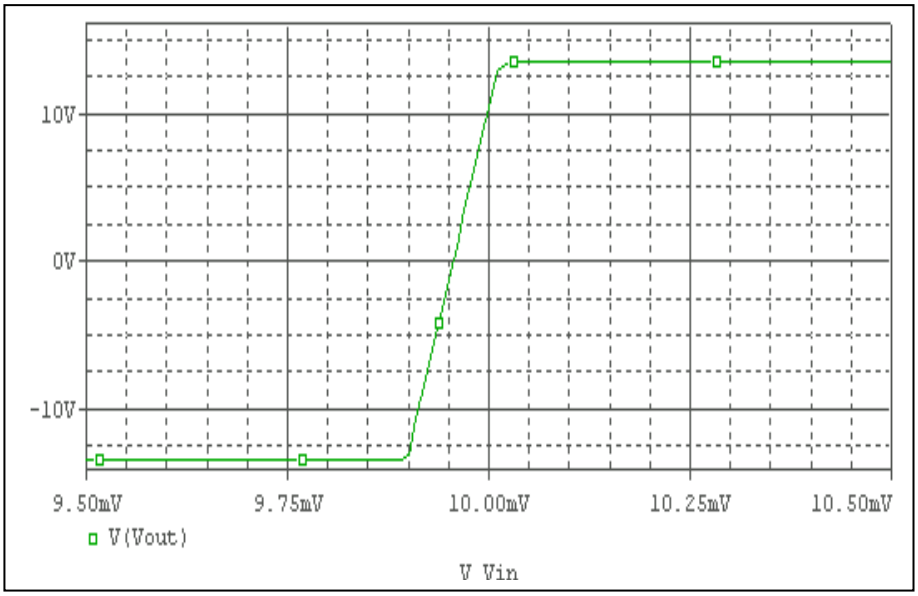
Evaluation circuit



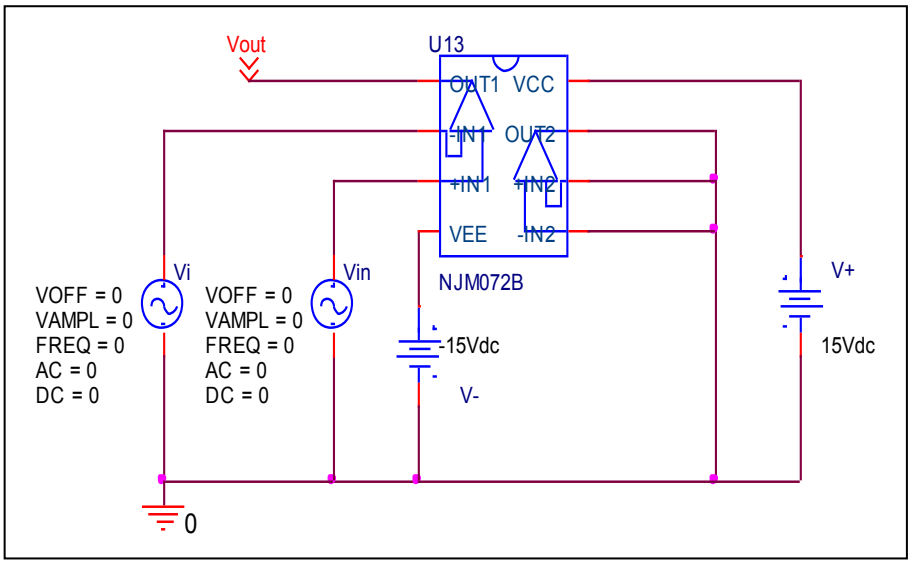
Output Voltage Swing	Data sheet	Simulation	%Error
+Vout(V)	+13.5	+13.491	0.066
-Vout(V)	-13.5	-13.491	0.066

Input Offset Voltage

Simulation result



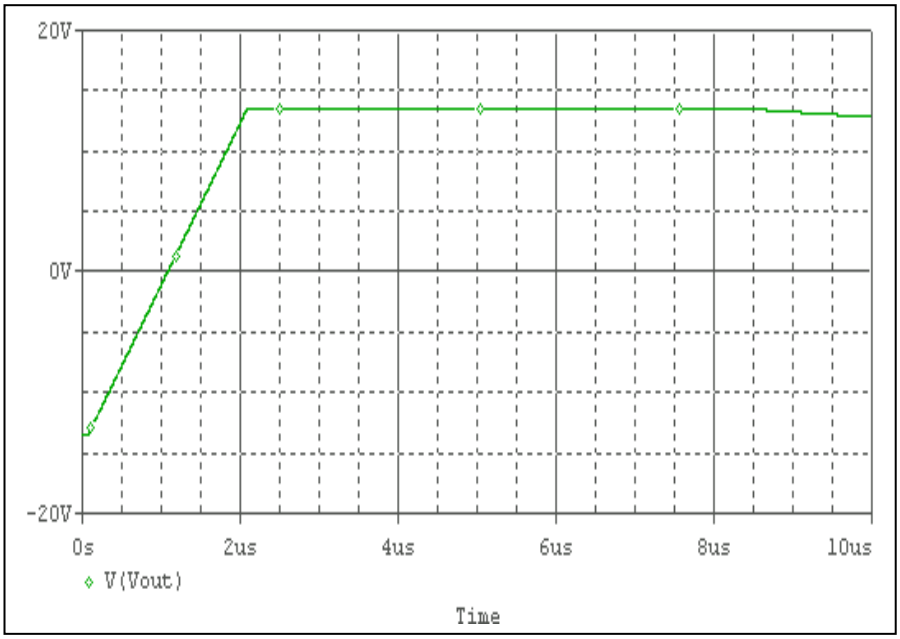
Evaluation circuit



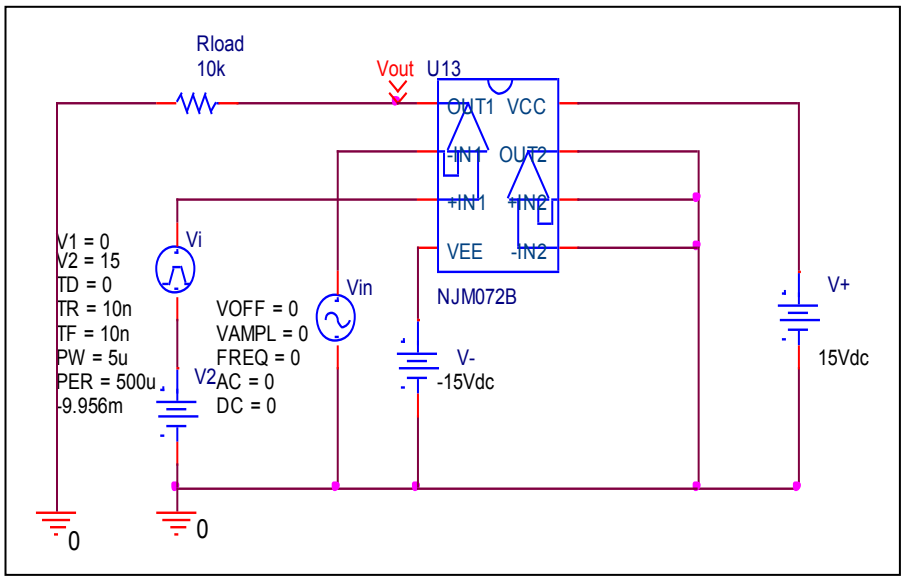
Vos	Measurement		Simulation		Error	
	10	mV	9.956	mV	0.44	%

Slew Rate, +SR, -SR

Simulation result



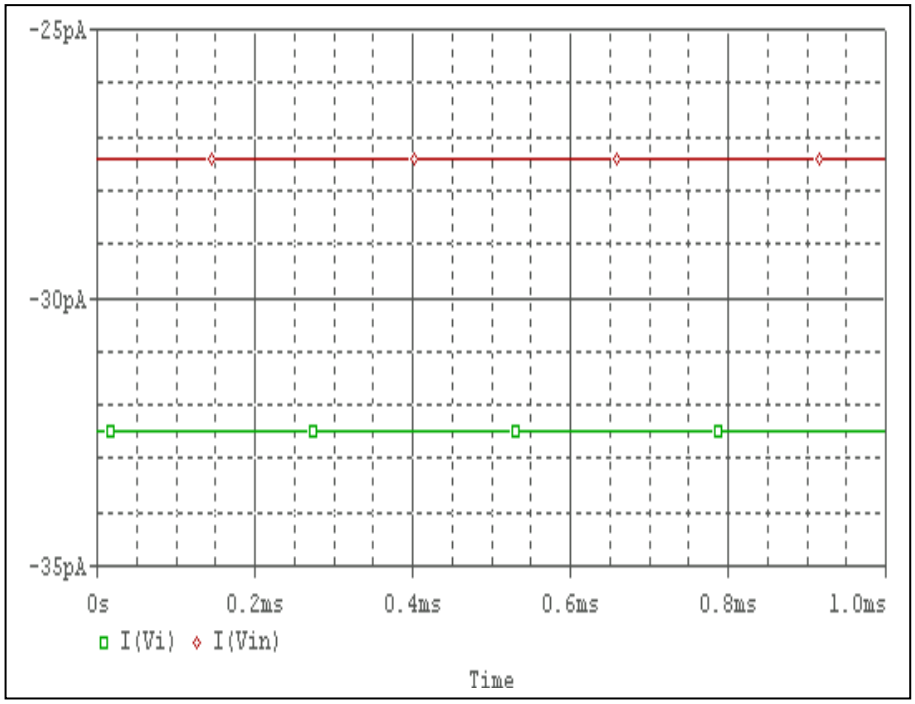
Evaluation circuit



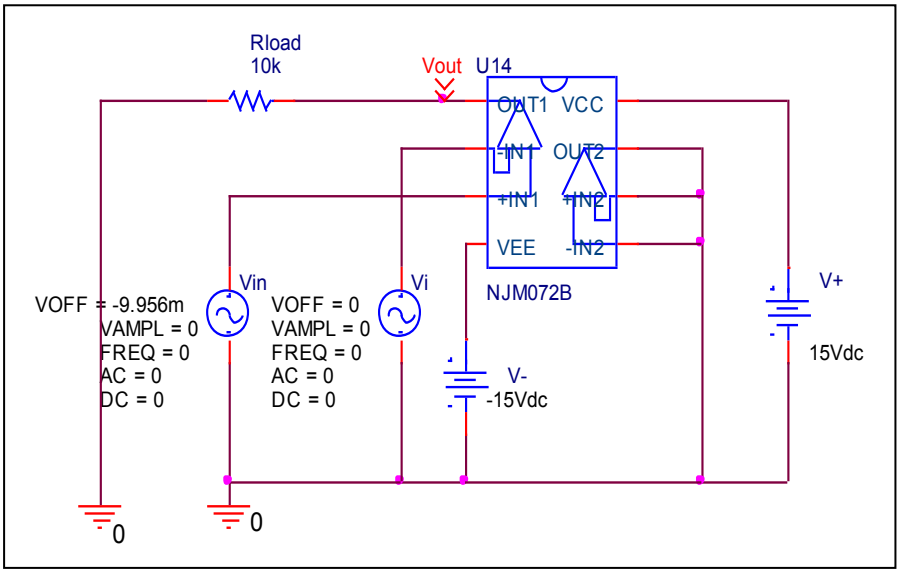
Slew Rate(v/us)	Data sheet	Simulation	%Error
	13V/us	13.4V/us	3.076

Input current Ib, Ibos

Simulation result



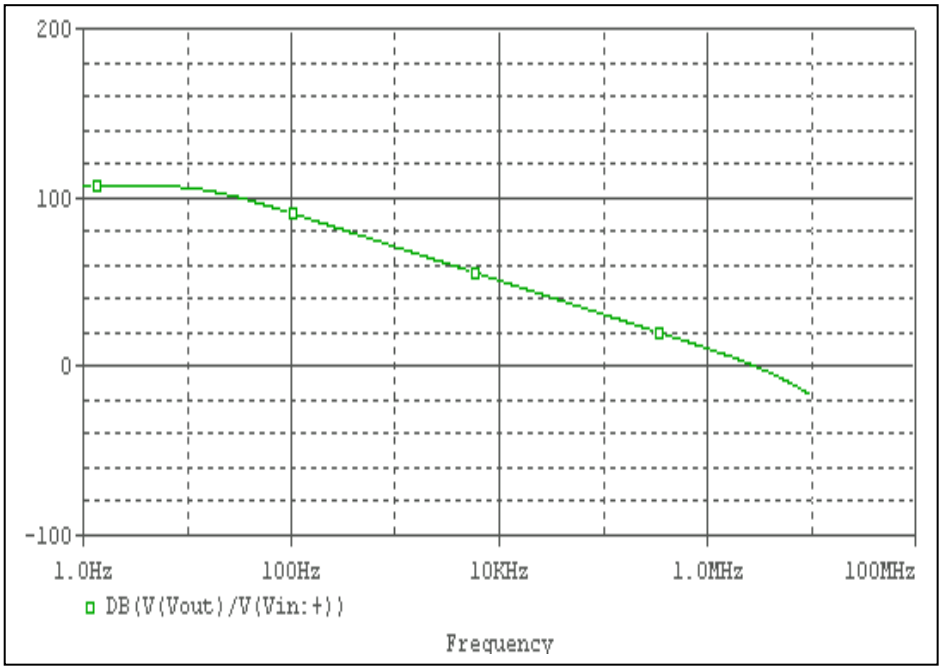
Evaluation circuit



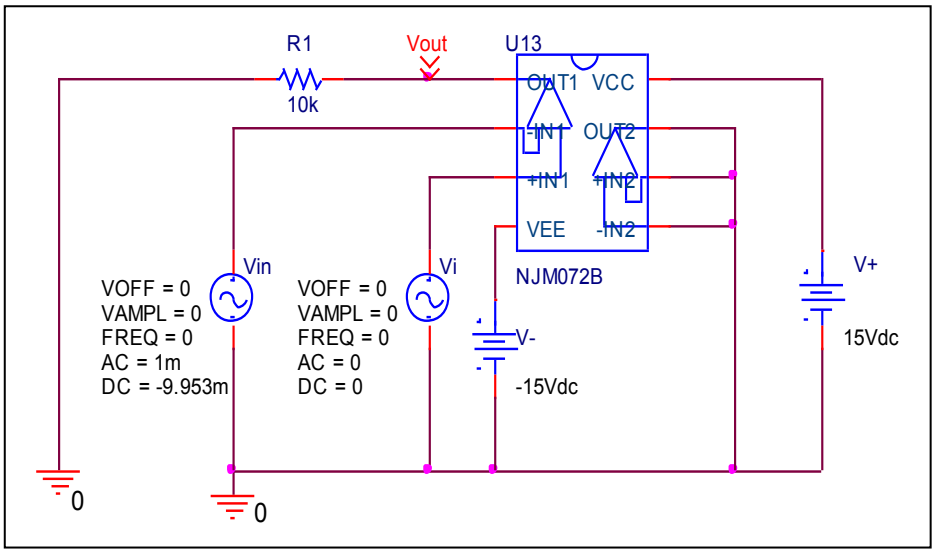
	Data sheet	Simulation	%Error
Ib(pA)	30	29.953	0.156
Ibos(pA)	5	5.048	0.93

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

Simulation result



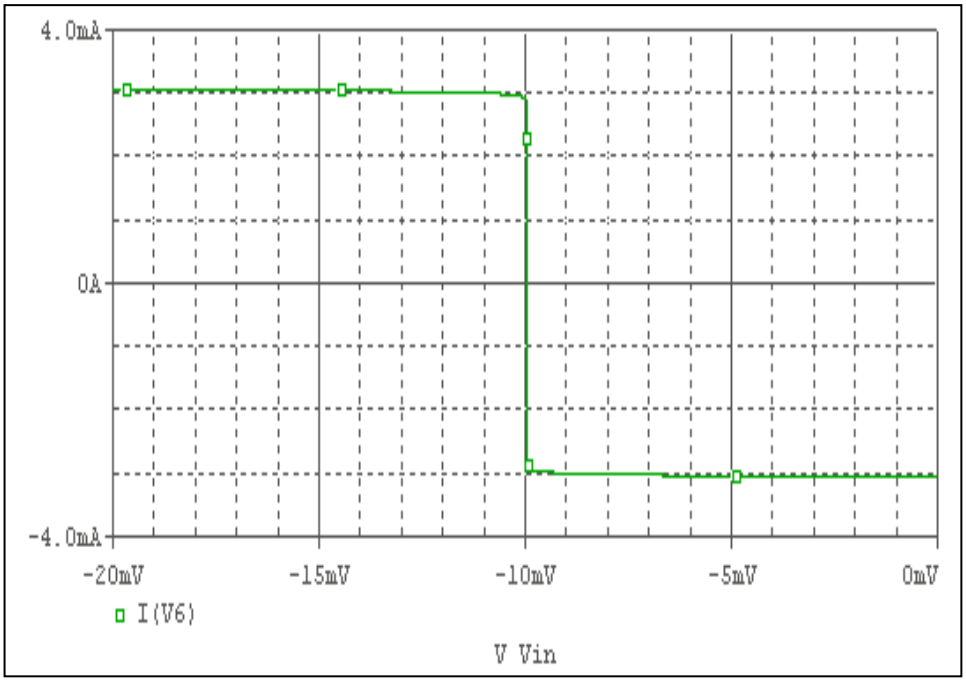
Evaluation circuit



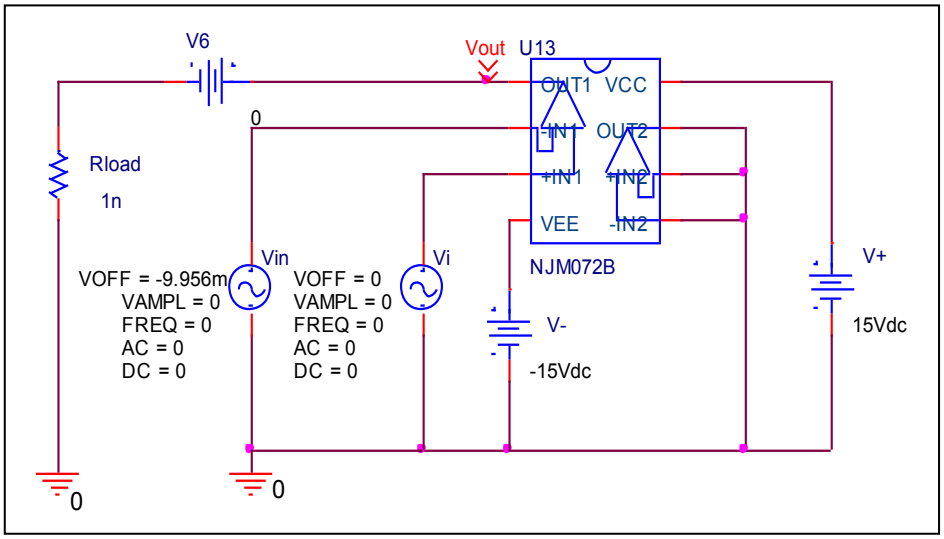
	Data sheet	Simulation	%Error
f-0dB(MHz)	3	2.946	1.8
Av-dc	106	106.4	0.377

Output Short Circuit Current - Ios

Simulation result



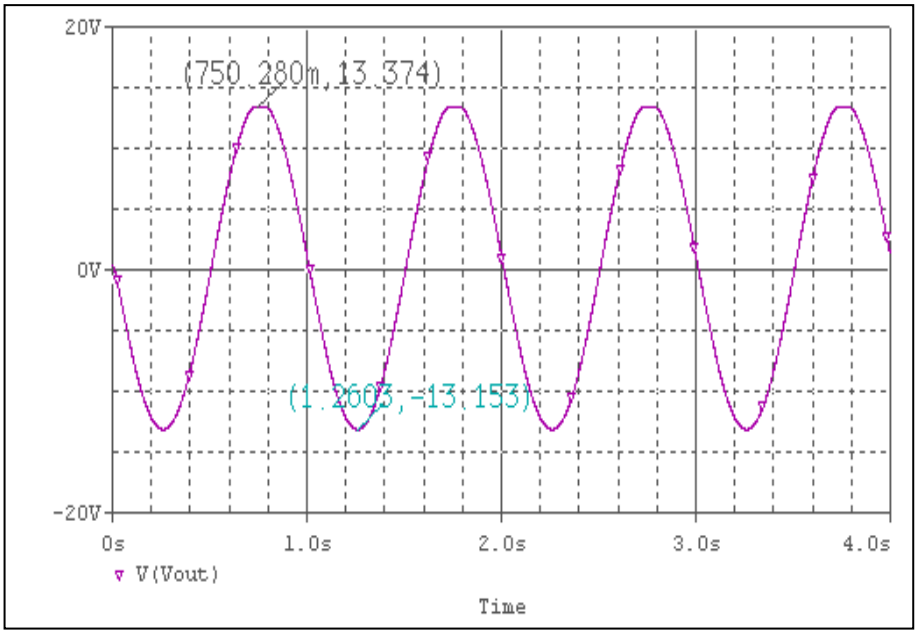
Evaluation circuit



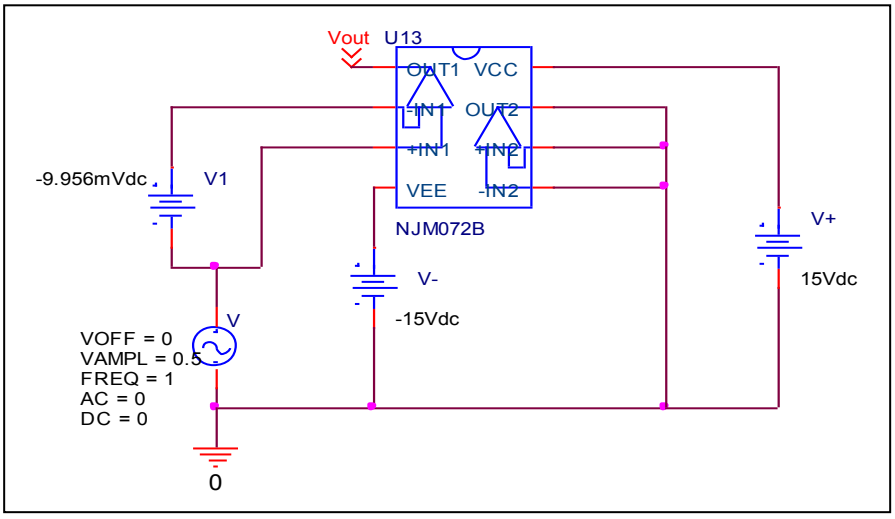
Short Circuit Current	Data sheet	Simulation	%Error
	3mA	3.016mA	0.533

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common mode gain=26.528/1=26.528
Common Mode Reject Ratio=208929/26.528 = 7875 = 77.925 dB

CMRR(dB)	Data sheet	Simulation	%Error
	76	77.925	2.5329