

Device Modeling Report

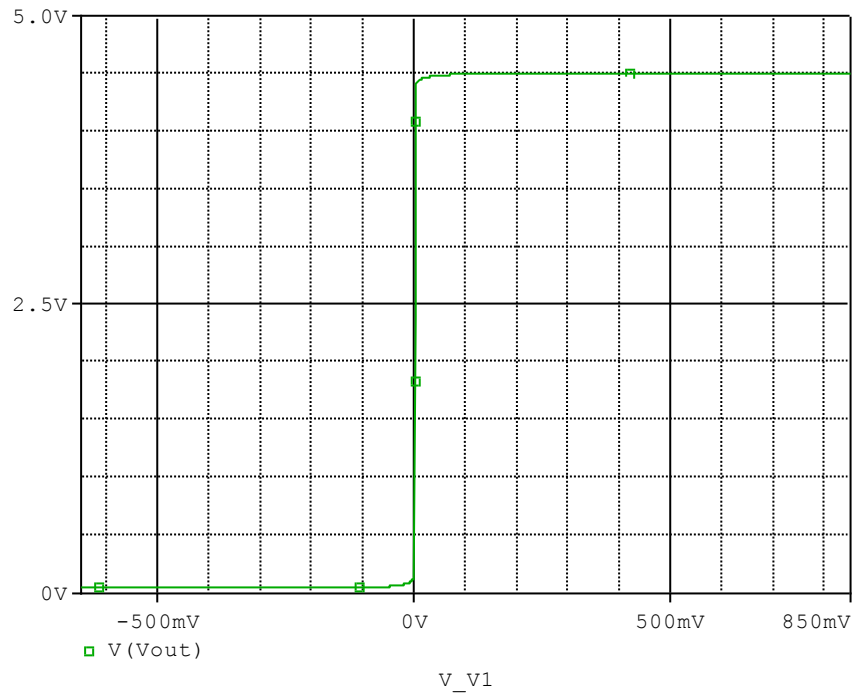
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM2716
MANUFACTURER: NEW JAPAN RADIO CO., LTD.



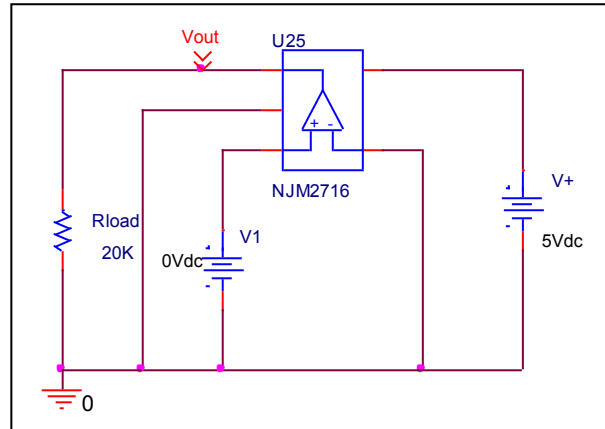
Bee Technologies Inc.

Output Voltage Swing

Simulation result



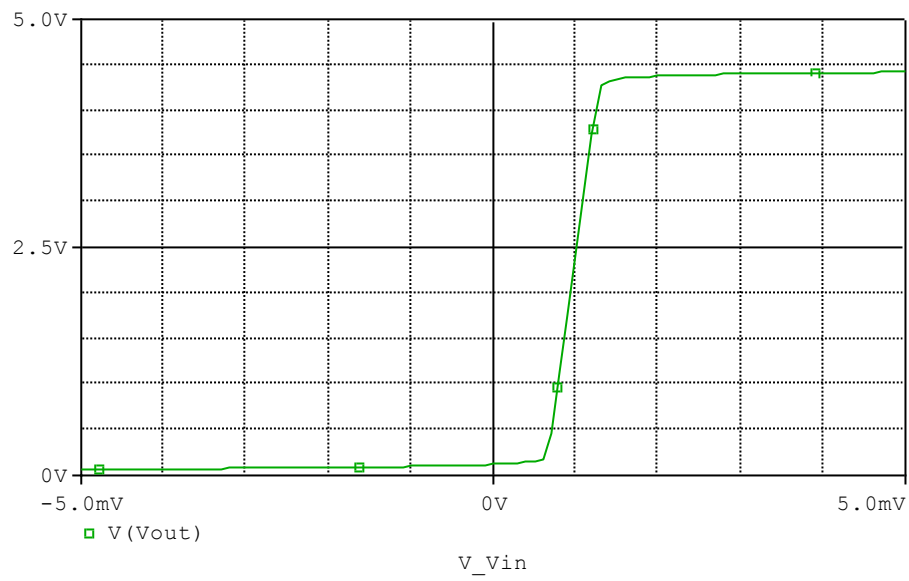
Evaluation circuit



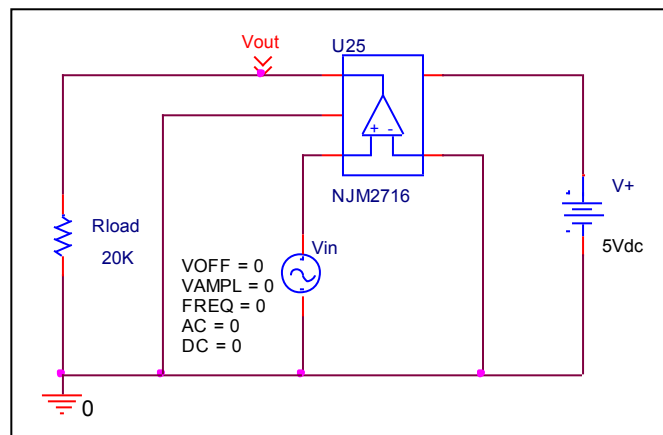
Output Voltage Swing	Data sheet	Simulation	%Error
Voh(V)	4.500	4.495	-0.111
Vol(V)	0.050	0.050	0.000

Input Offset Voltage

Simulation result



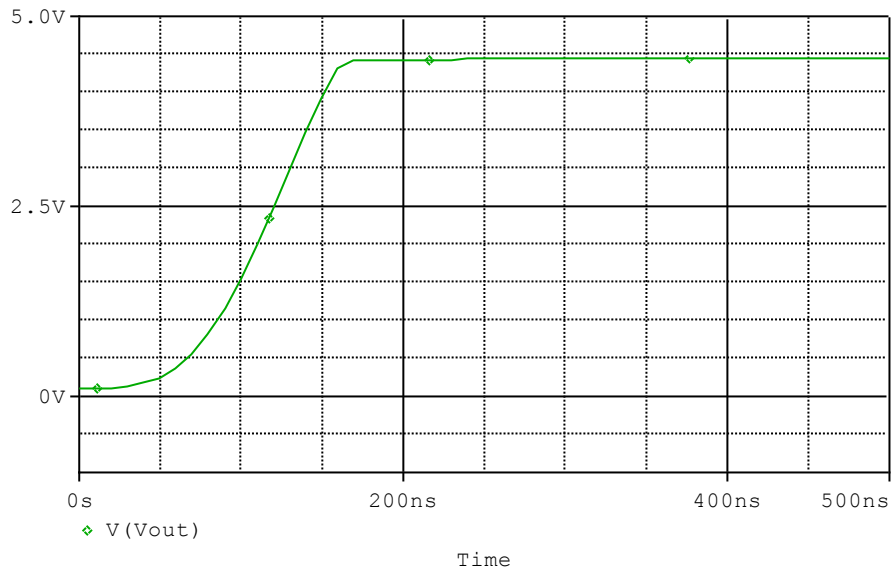
Evaluation circuit



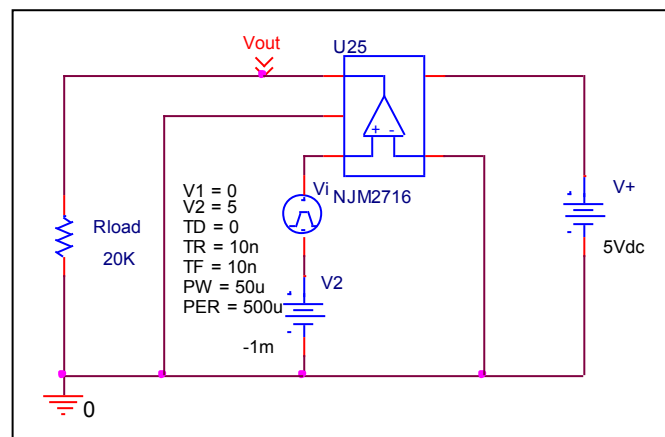
Vos	Measurement		Simulation		Error	
	1.000	mV	1.000	mV	0.000	%

Slew Rate

Simulation result



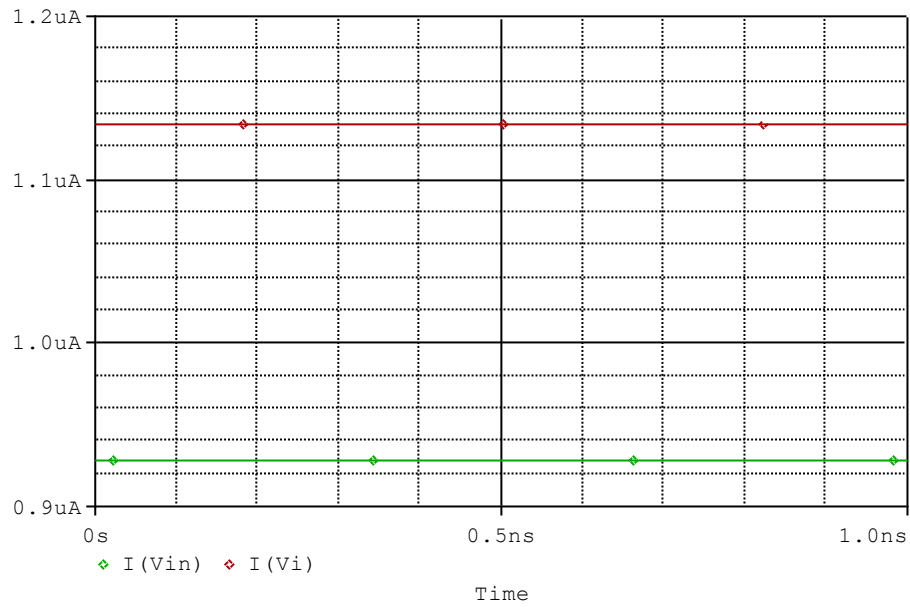
Evaluation circuit



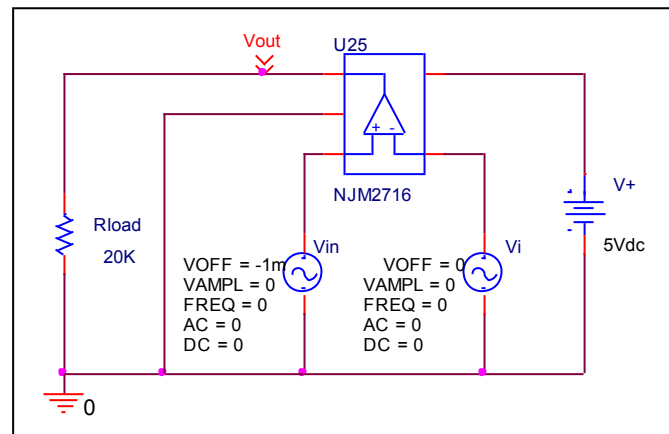
Slew Rate(v/us)	Data sheet	Simulation	%Error
		40.000	40.900

Input current

Simulation result



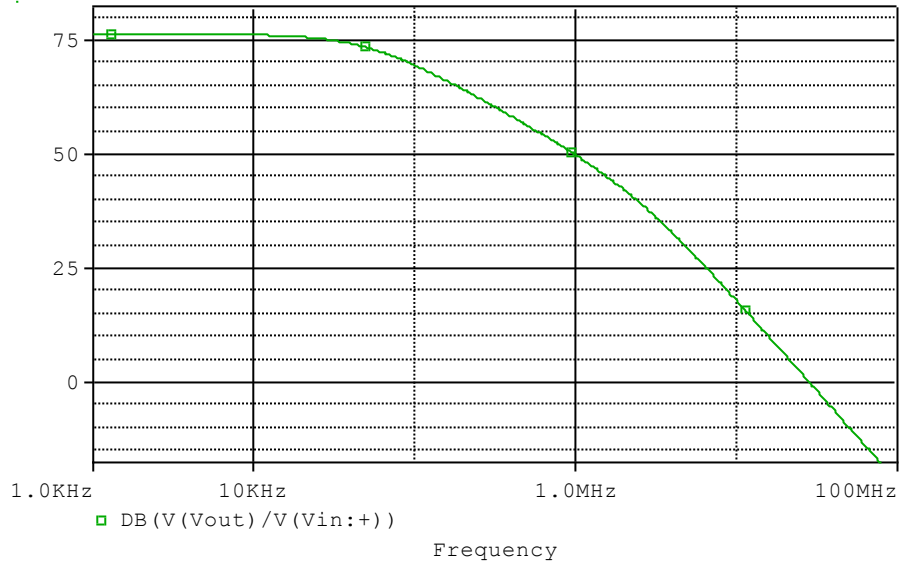
Evaluation circuit



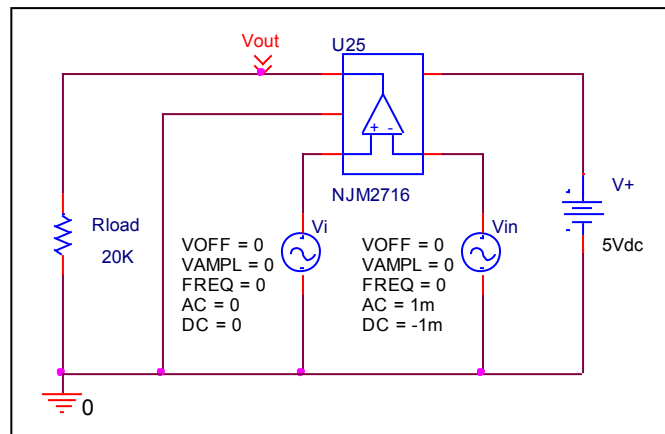
	Data sheet	Simulation	%Error
Ib(nA)	1.000	1.030	3.000
Ibos(nA)	200.000	205.203	2.602

Open Loop Voltage Gain vs. Frequency

Simulation result



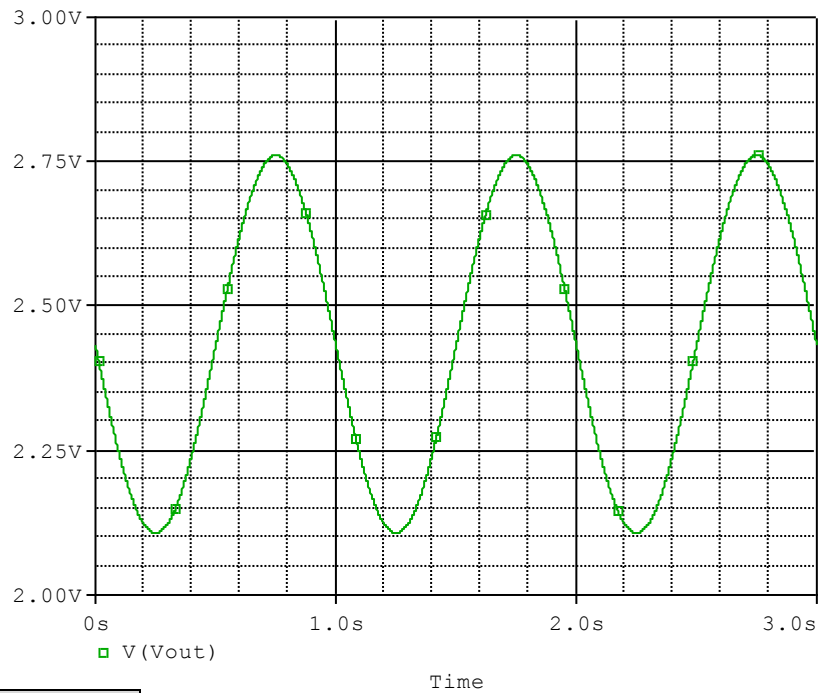
Evaluation circuit



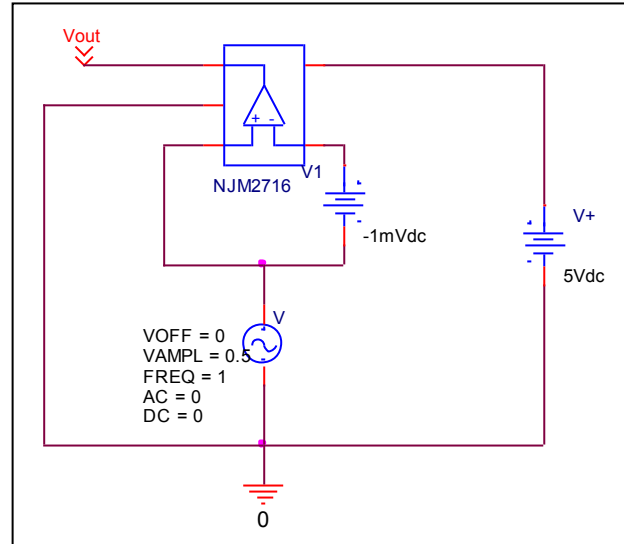
	Data sheet	Simulation	%Error
f-0dB(MHz)	30.000	28.540	-4.867
Av-dc(dB)	75.000	76.310	1.747

Common- Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio= $6538.829/0.653=10013.520$

CMRR(dB)	Data sheet	Simulation	%Error
		80.000	80.011