

Device Modeling Report

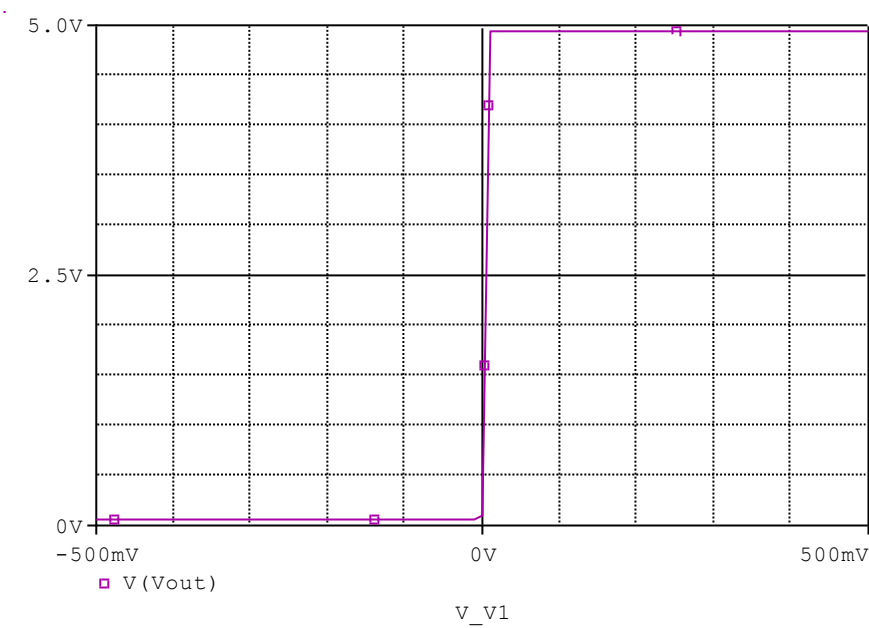
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM2732
MANUFACTURER: NEW JAPAN RADIO CO.,LTD



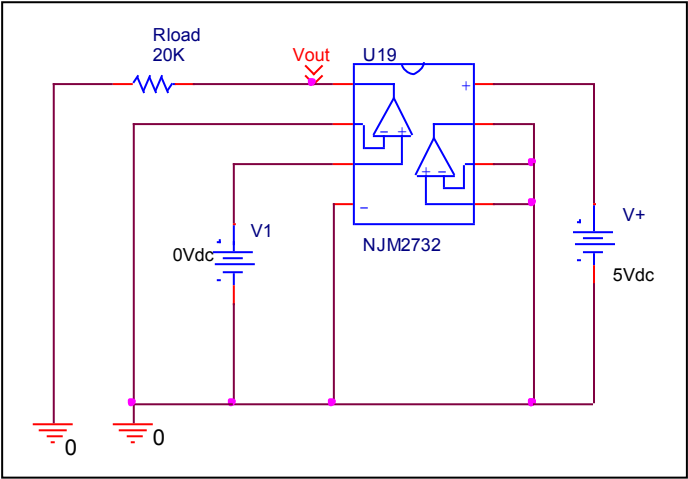
Bee Technologies Inc.

Output Voltage Swing

Simulation result



Evaluation circuit

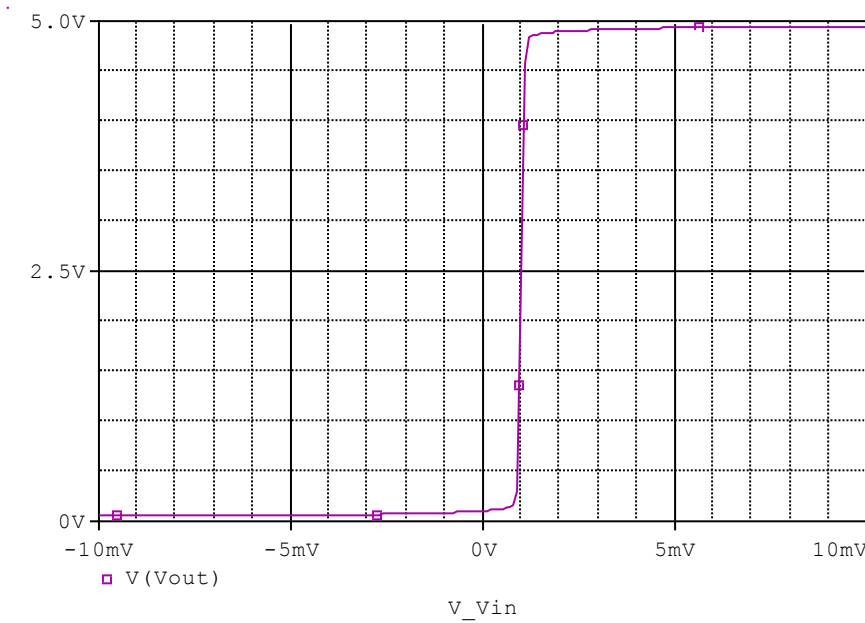


Comparison table

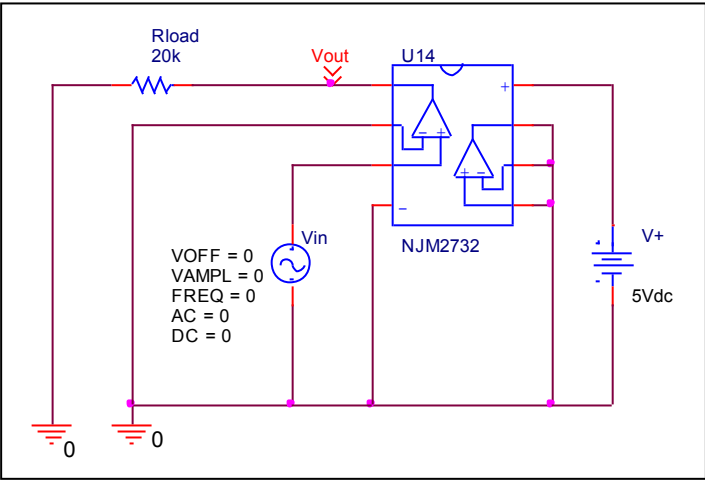
Output Voltage Swing	Data sheet	Simulation	%Error
VOH	4.95	4.949	-0.02
VOL	0.05	0.05	0

Input Offset Voltage

Simulation result



Evaluation circuit

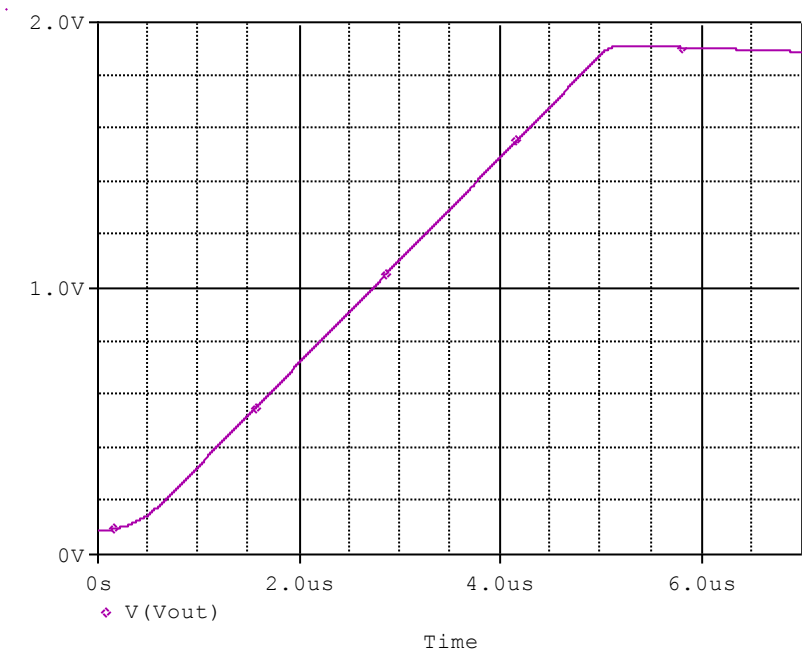


Comparison table

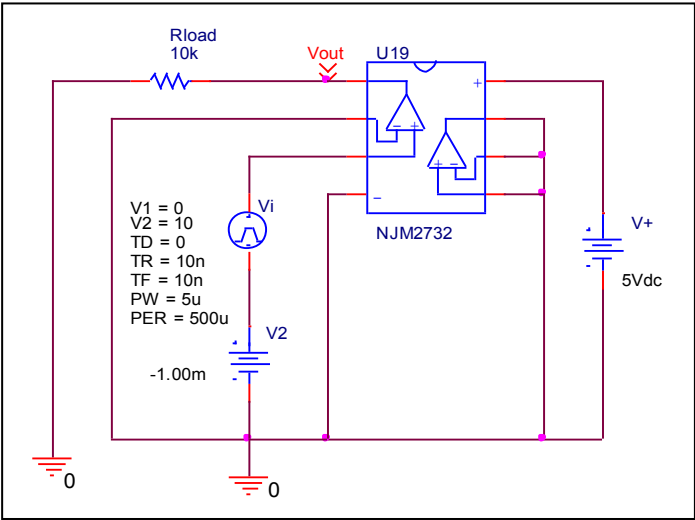
Vio	Measurement		Simulation		Error	
	1	mV	1	mV	0	%

Slew Rate

Simulation result



Evaluation circuit

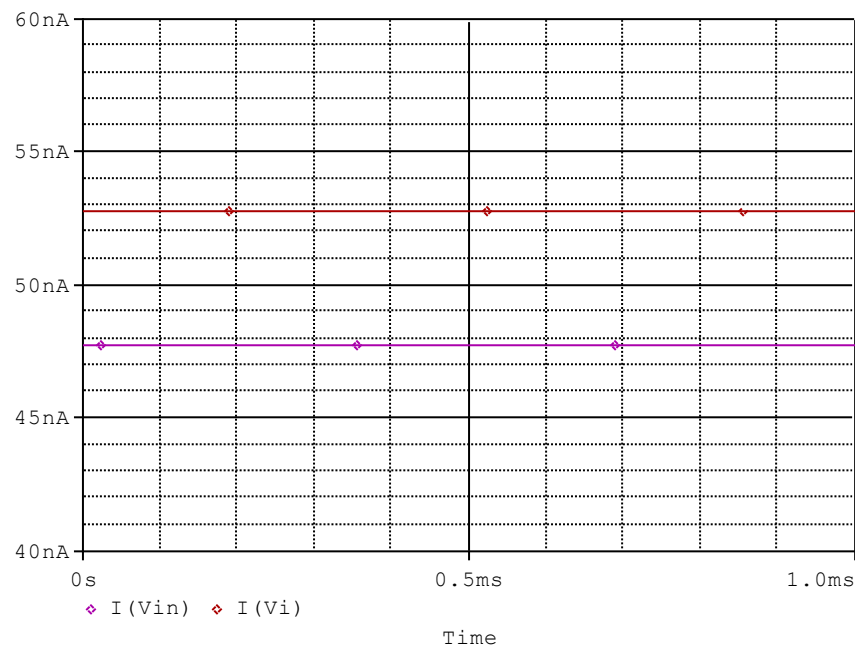


Comparison table

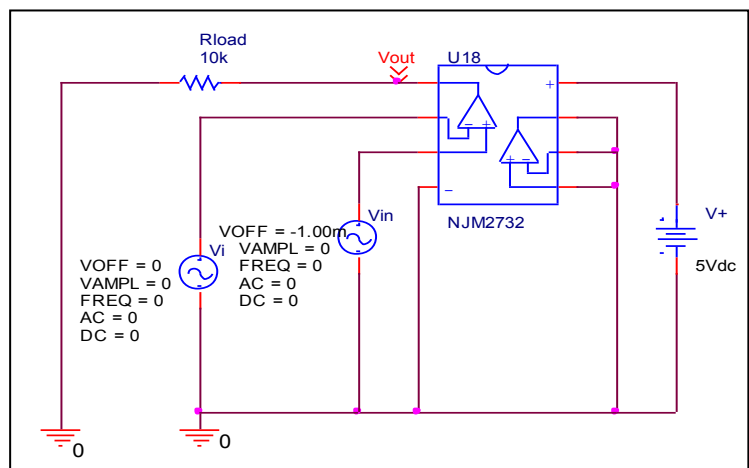
Slew Rate(v/us)	Data sheet	Simulation	%Error
	0.4	0.388	-3

Input current

Simulation result



Evaluation circuit

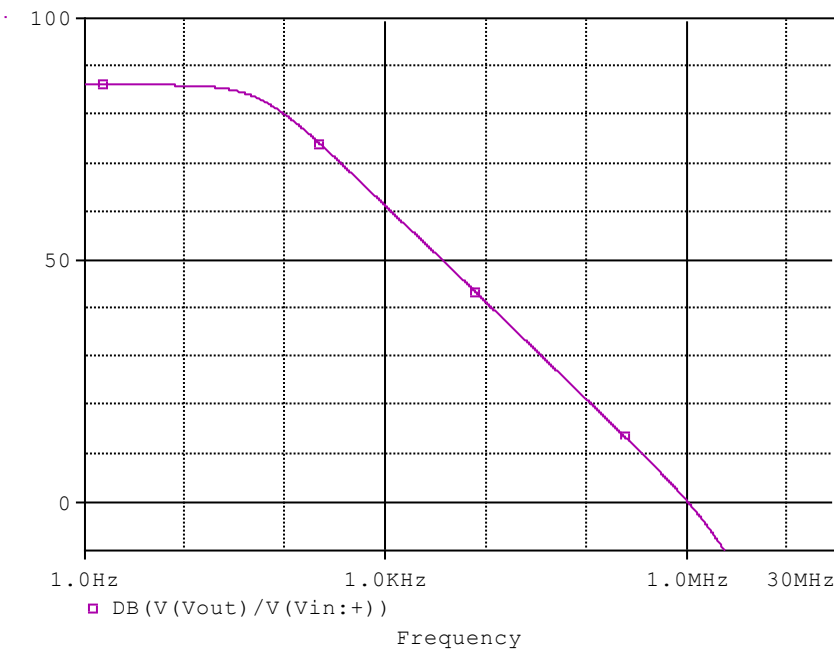


Comparison table

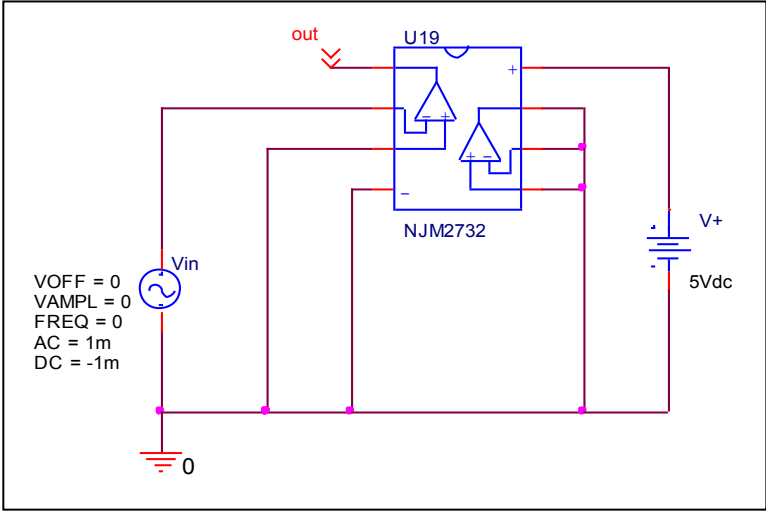
	Data sheet	Simulation	%Error
Ib(nA)	50	50.235	0.47
Iio(nA)	5	5.051	1.02

Open Loop Voltage Gain vs. Frequency

Simulation result



Evaluation circuit

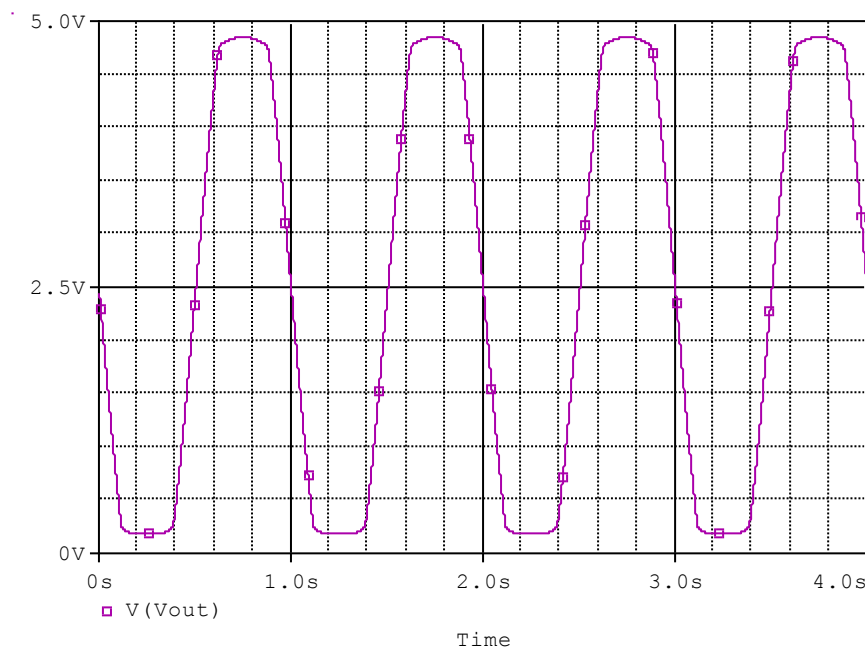


Comparison table

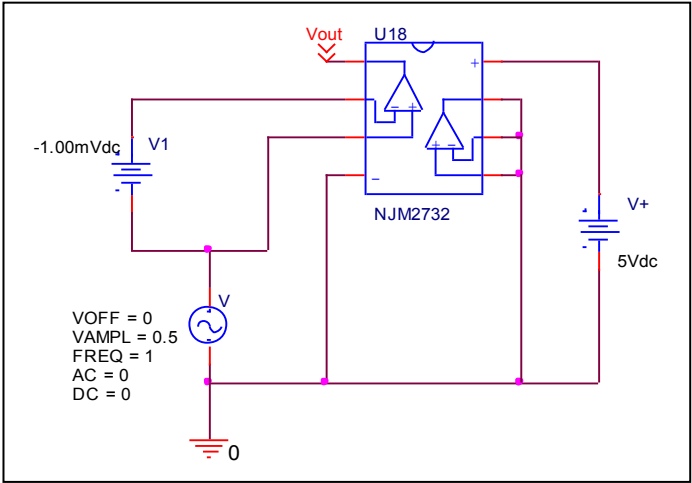
	Data sheet	Simulation	%Error
f-0dB(MHz)	1	1.028	2.8
Av-dc	85	86.231	1.448

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio= $20490.379/4.654 = 4402.745 = 72.874\text{dB}$

Comparison table

CMRR(dB)	Data sheet	Simulation	%Error
	70	72..95	4.105