

# Device Modeling Report

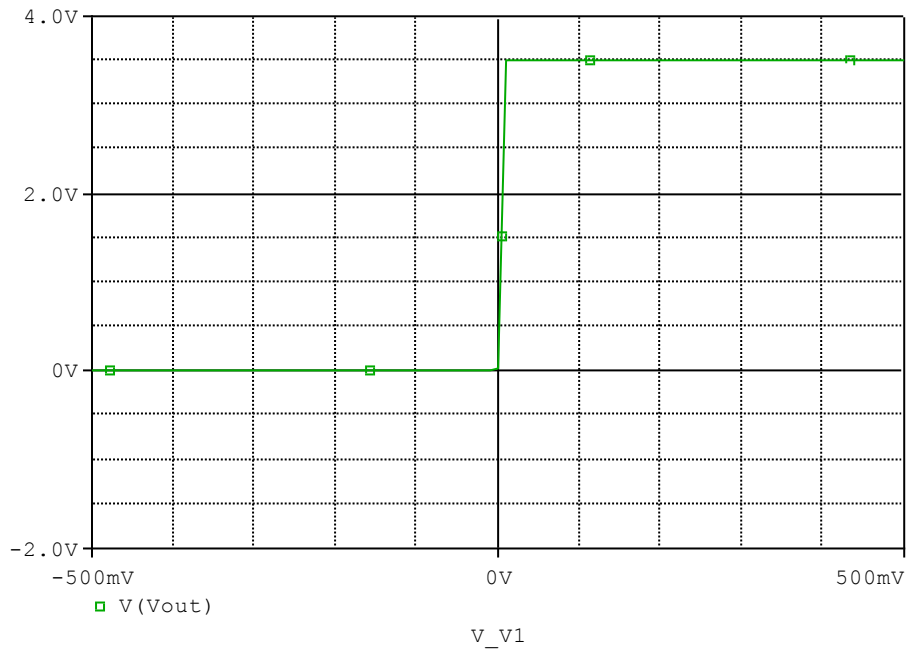
COMPONENTS:MOSFET: OPERATIONAL AMPLIFIER  
PART NUMBER:NJM2125  
MANUFACTURER: NEW JAPAN RADIO CO.,LTD



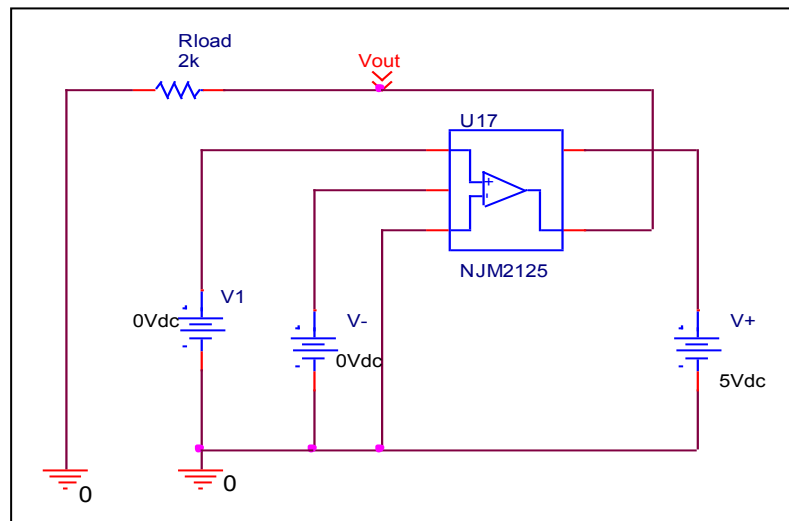
Bee Technologies Inc.

## Output Voltage Swing, +Vout and -Vout

### Simulation result



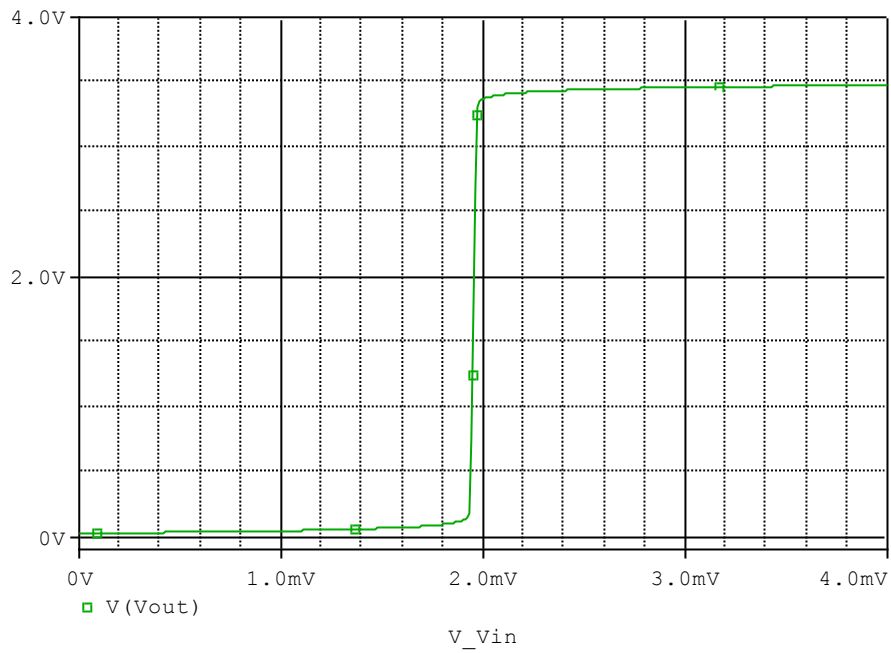
### Evaluation circuit



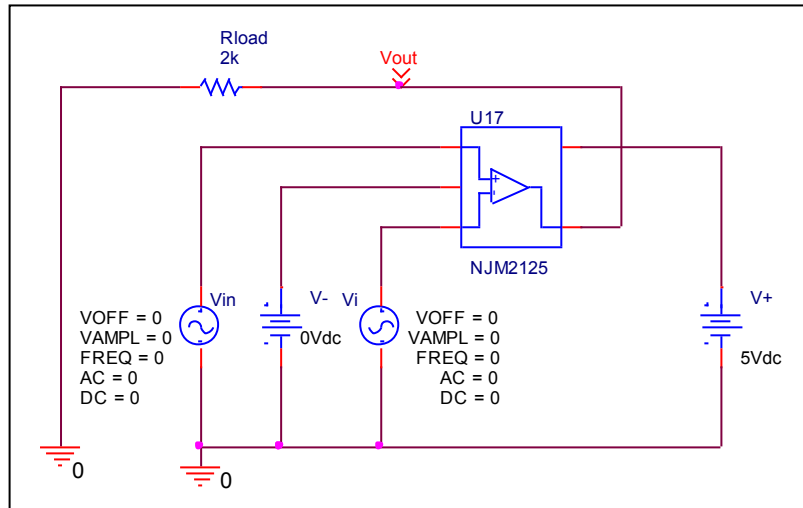
Output Voltage Swing	Data sheet	Simulation	%Error
+Vout(V)	3.500	3.498	-0.057

# Input Offset Voltage

## Simulation result



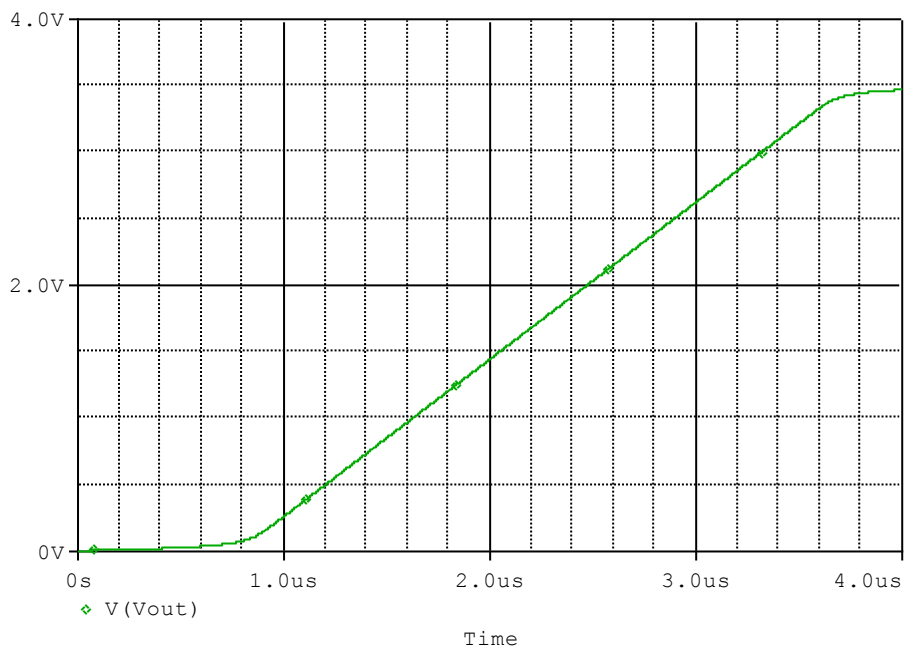
## Evaluation circuit



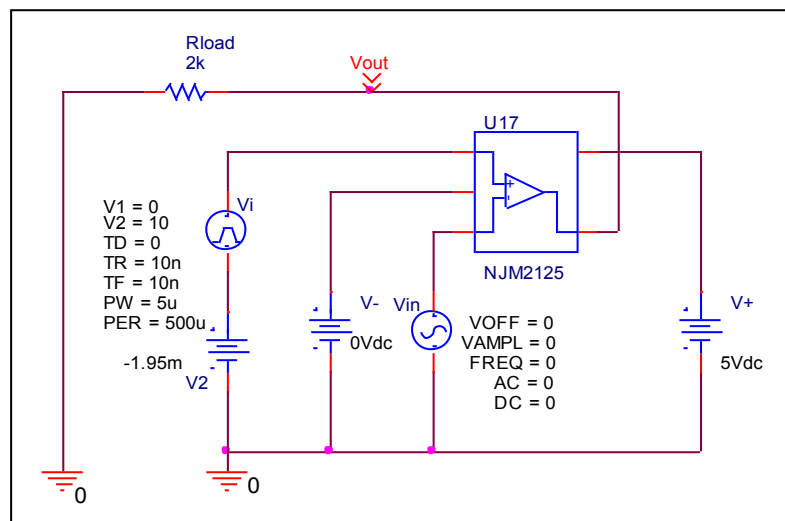
Vos	Measurement		Simulation		Error	
	2.000	mV	1.950	mV	-2.500	%

## Slew Rate, +SR, -SR

### Simulation result



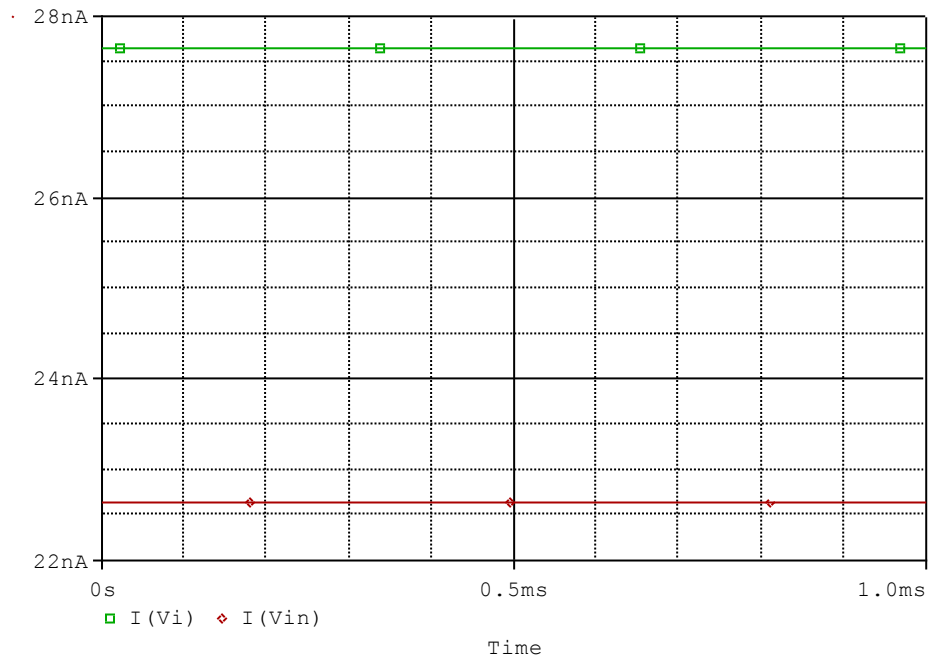
### Evaluation circuit



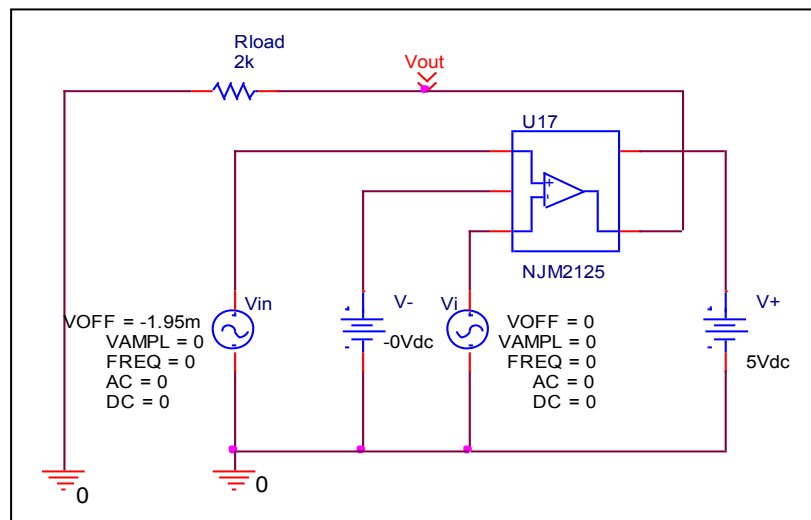
Slew Rate(v/us)	Data sheet	Simulation	%Error
		1.200V/us	1.181V/us

# Input current Ib, Ibos

## Simulation result



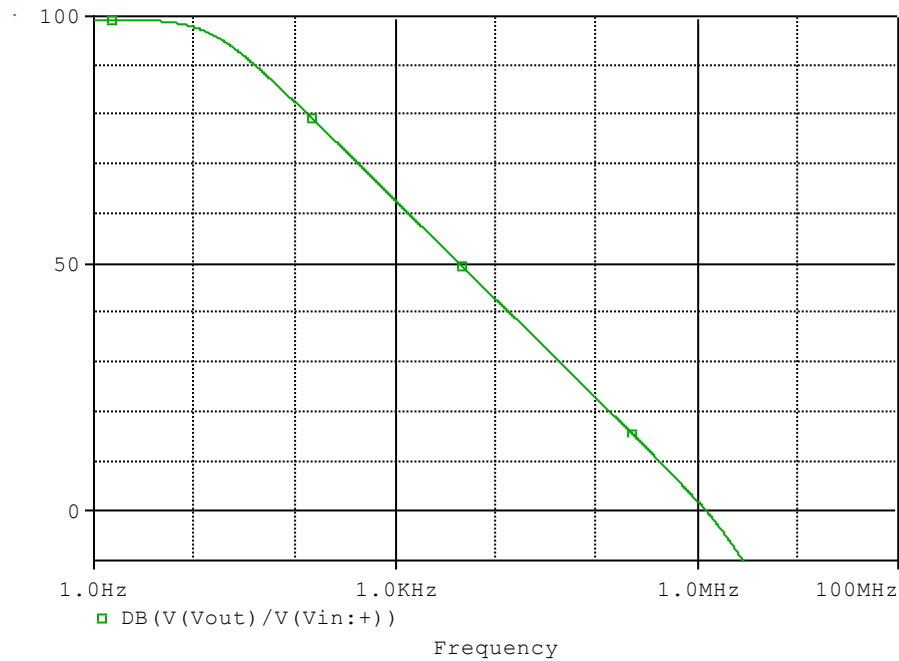
## Evaluation circuit



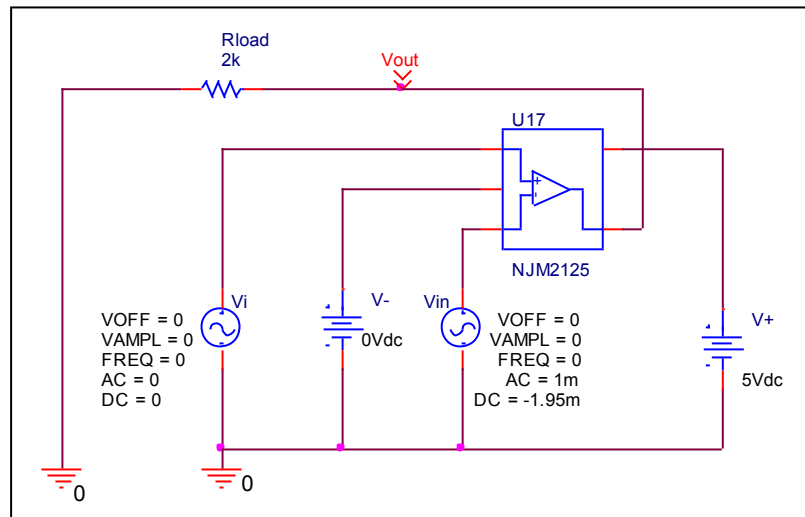
	Data sheet	Simulation	%Error
<b>Ib(nA)</b>	25.000	25.100	0.400
<b>Ibos(nA)</b>	5.000	5.000	0.000

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

## Simulation result



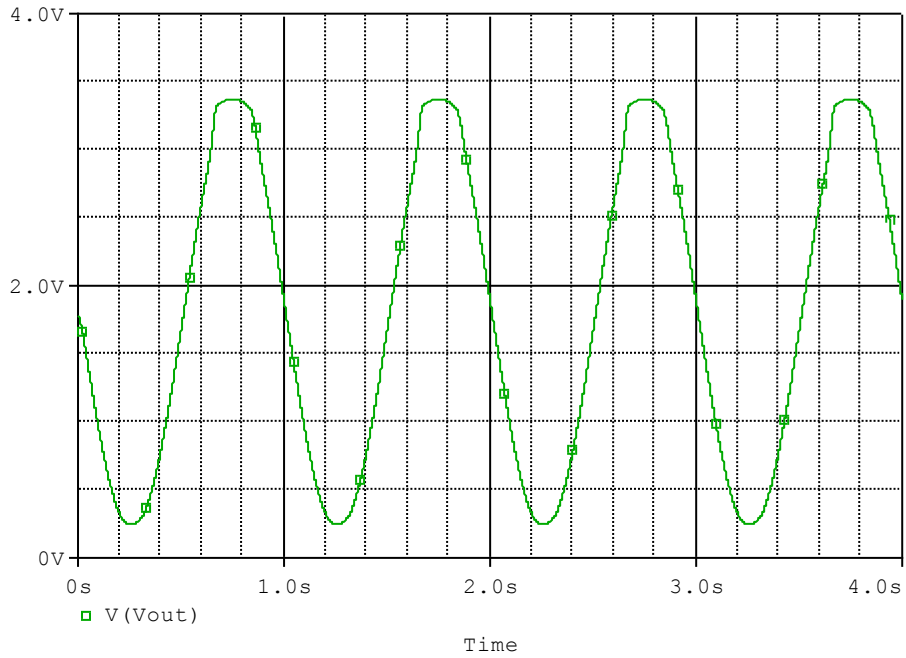
## Evaluation circuit



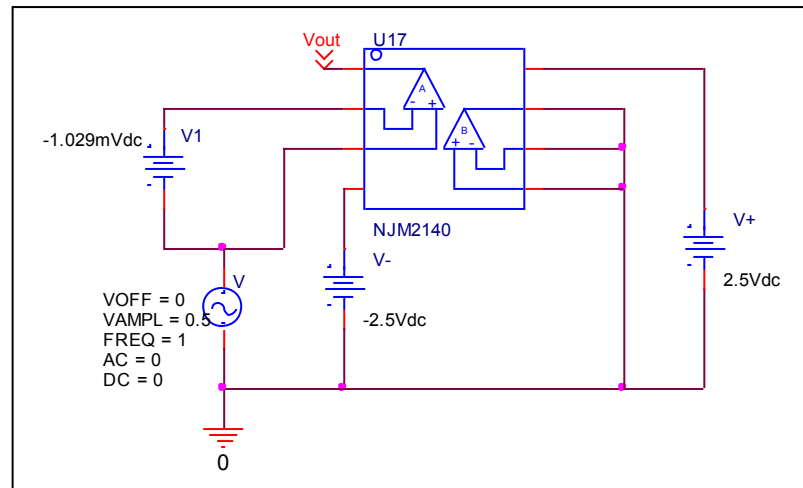
	Data sheet	Simulation	%Error
<b>f-0dB(MHz)</b>	1.200	1.180	-1.667
<b>Av-dc(dB)</b>	100.000	99.382	-0.618

# Common-Mode Rejection Voltage gain

## Simulation result



## Evaluation circuit



Common Mode Reject Ratio= $93132.229/3.121=29840.509$

CMRR	Data sheet	Simulation	%Error
		90.000	89.496