

Device Modeling Report

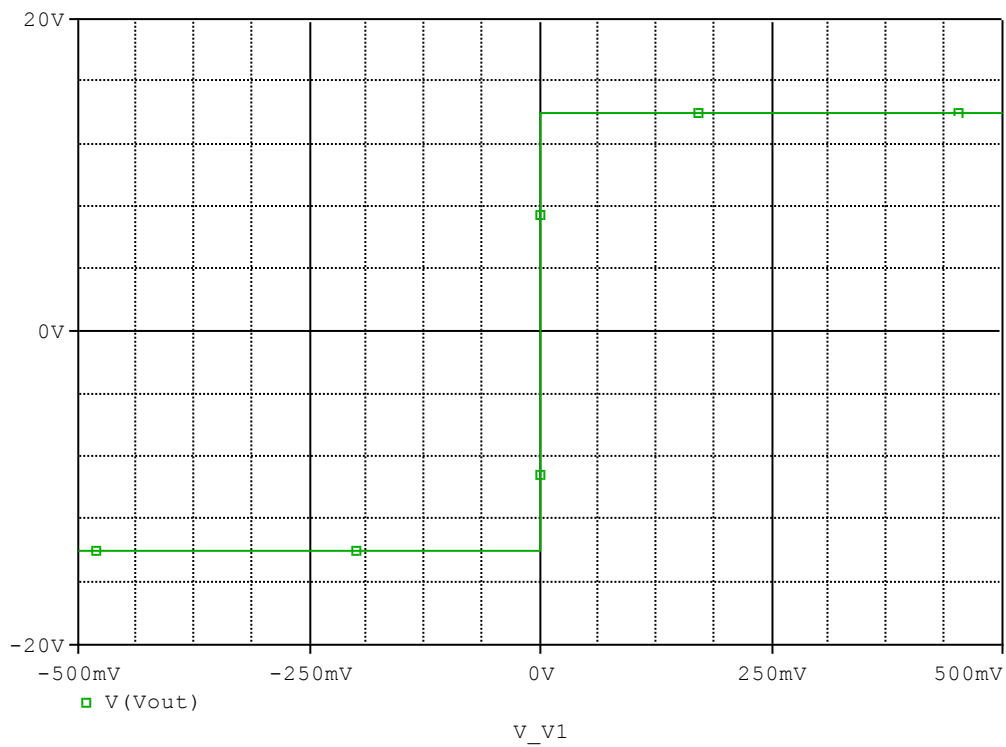
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: HA17558B
MANUFACTURER: RENESAS



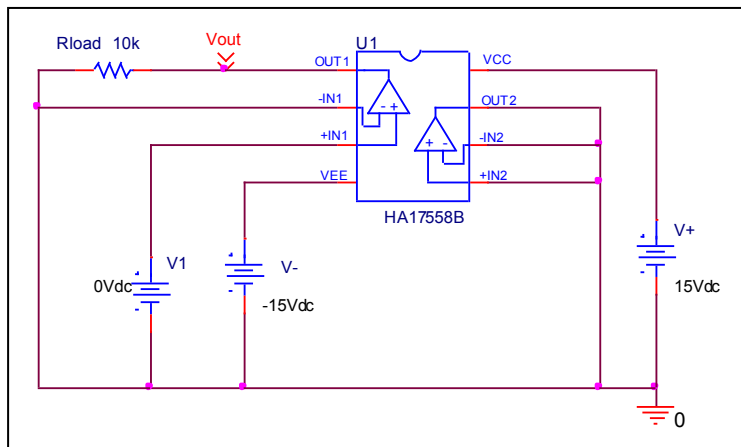
Bee Technologies Inc.

Output Voltage Swing

Simulation result



Evaluation circuit

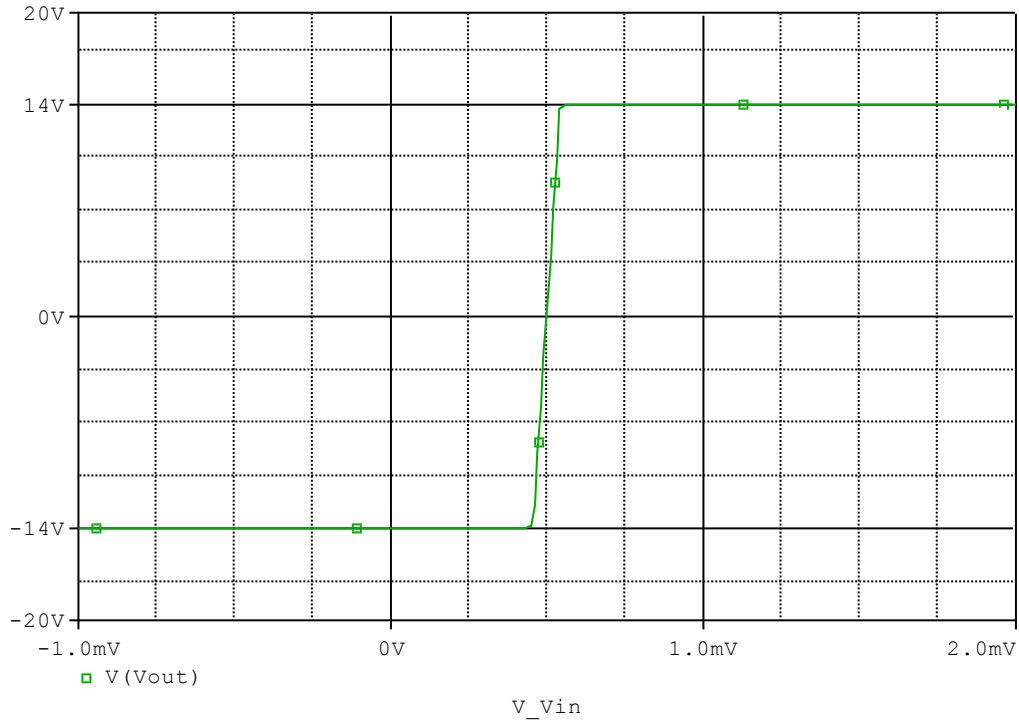


Comparison table

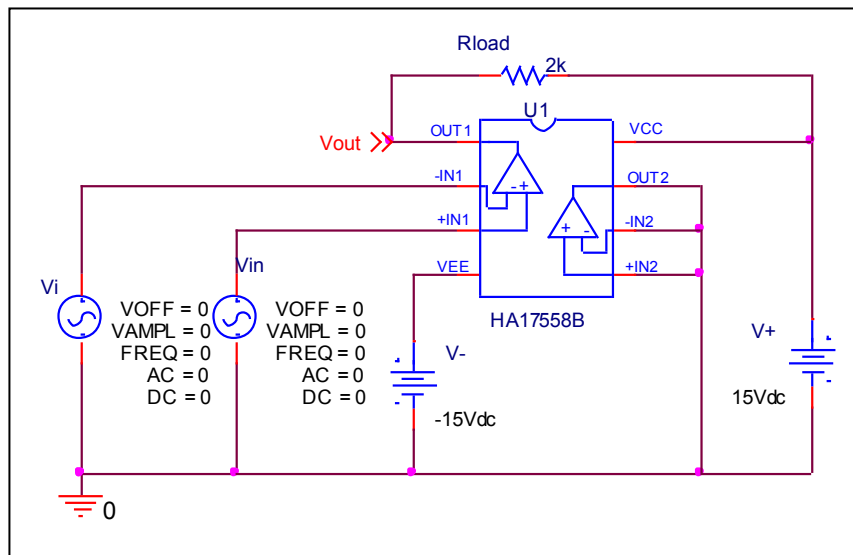
Output Voltage Swing	Measurement	Simulation	%Error
+Vout(V)	14.000	13.999	-0.007
-Vout(V)	-14.000	-13.999	-0.007

Input Offset Voltage

Simulation result



Evaluation circuit

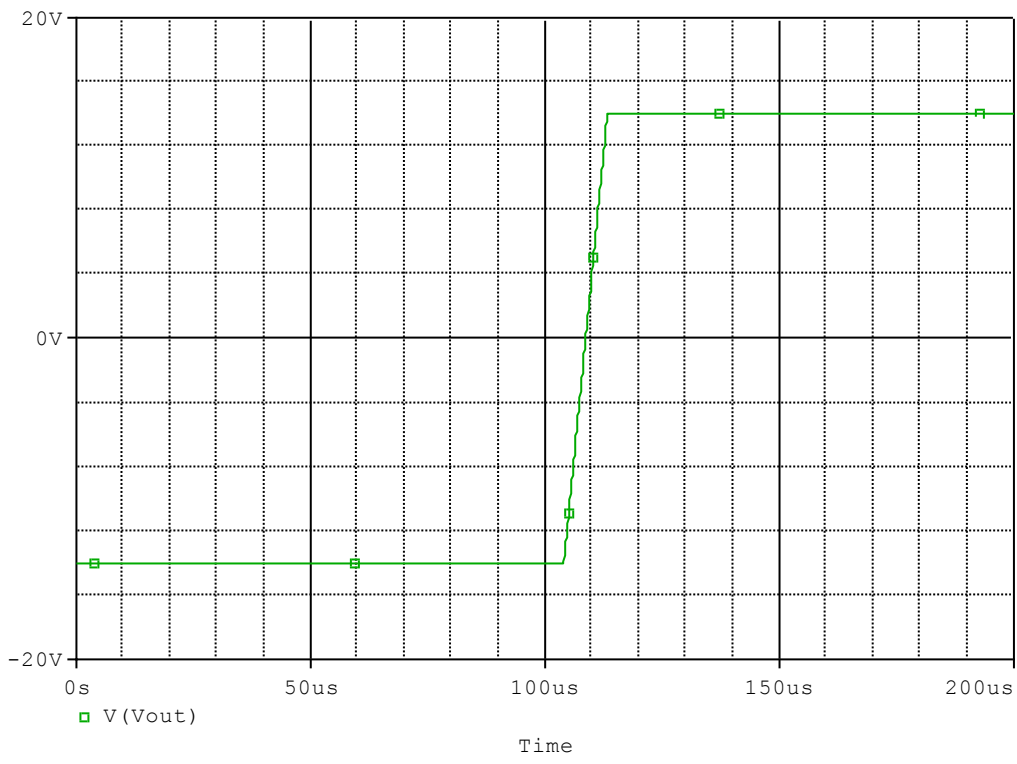


Comparison table

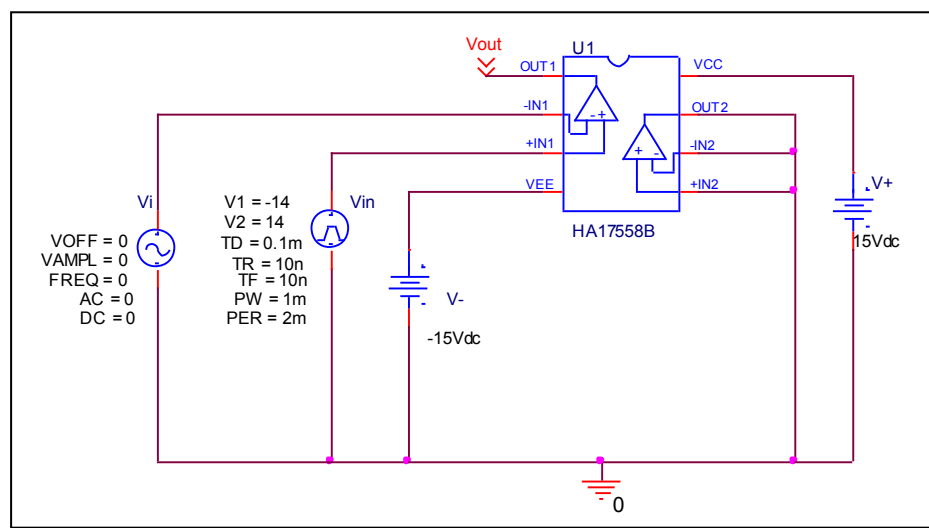
Vos(mV)	Measurement	Simulation	%Error
		0.500	0.498

Slew Rate

Simulation result



Evaluation circuit

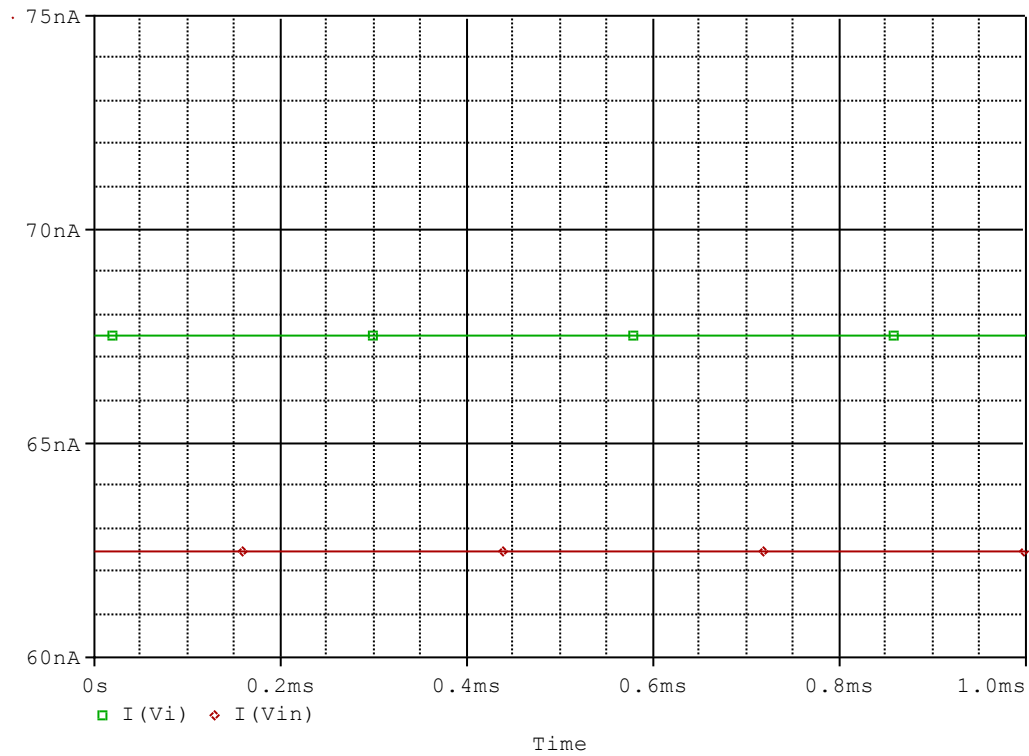


Comparison table

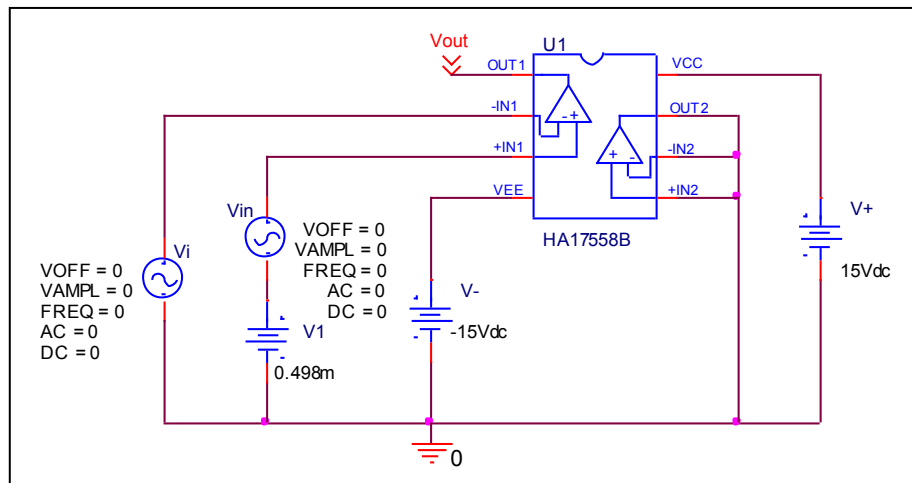
Slew Rate(v/us)	Measurement	Simulation	%Error
		3.000	3.017

Input current Ib, Ibos

Simulation result



Evaluation circuit

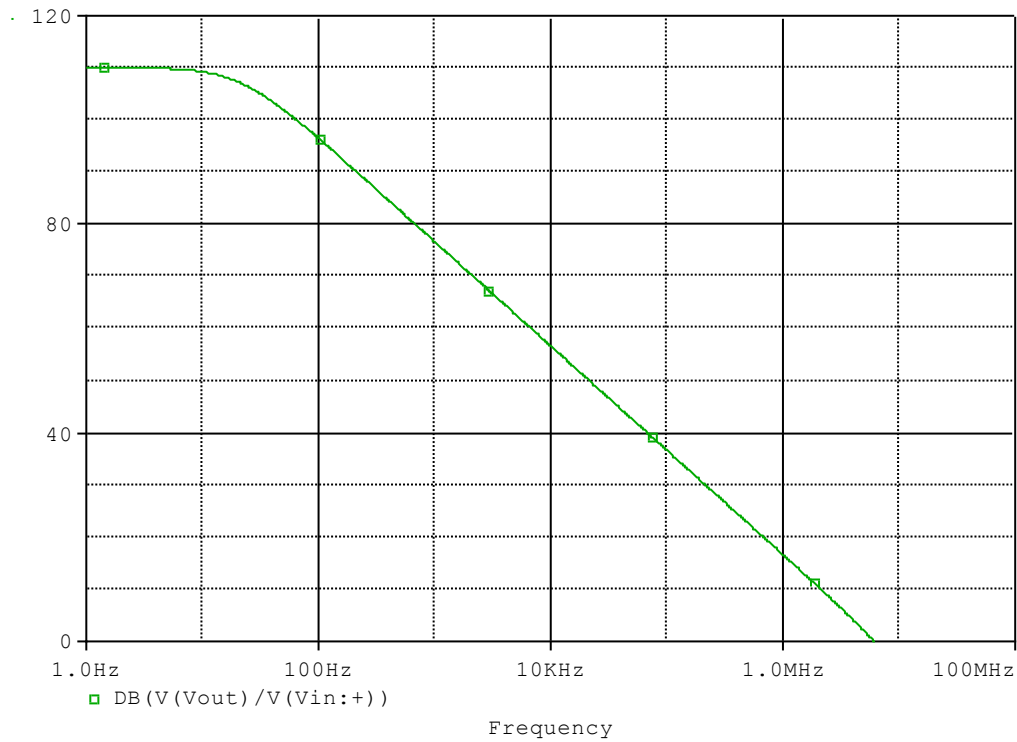


Comparison table

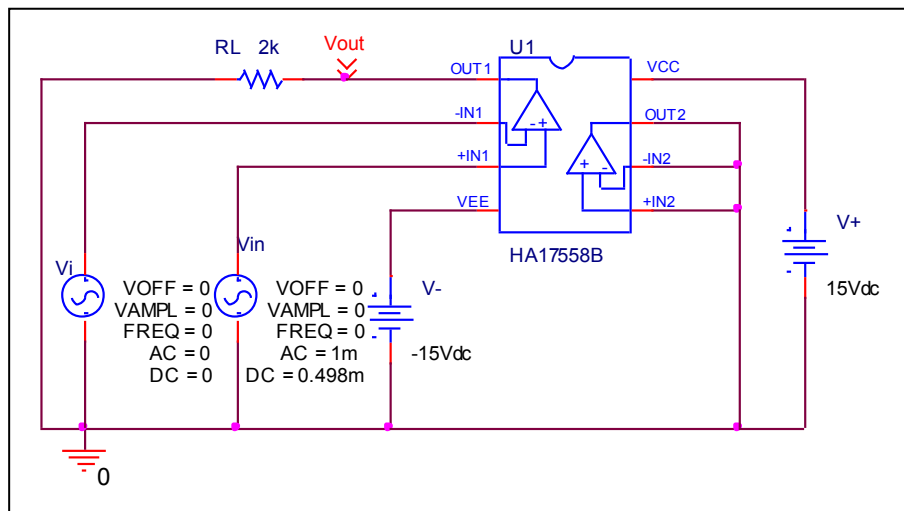
	Measurement	Simulation	%Error
Ib(nA)	65.000	64.999	-0.002
Ibos(nA)	5.000	5.007	0.142

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

Simulation result



Evaluation circuit

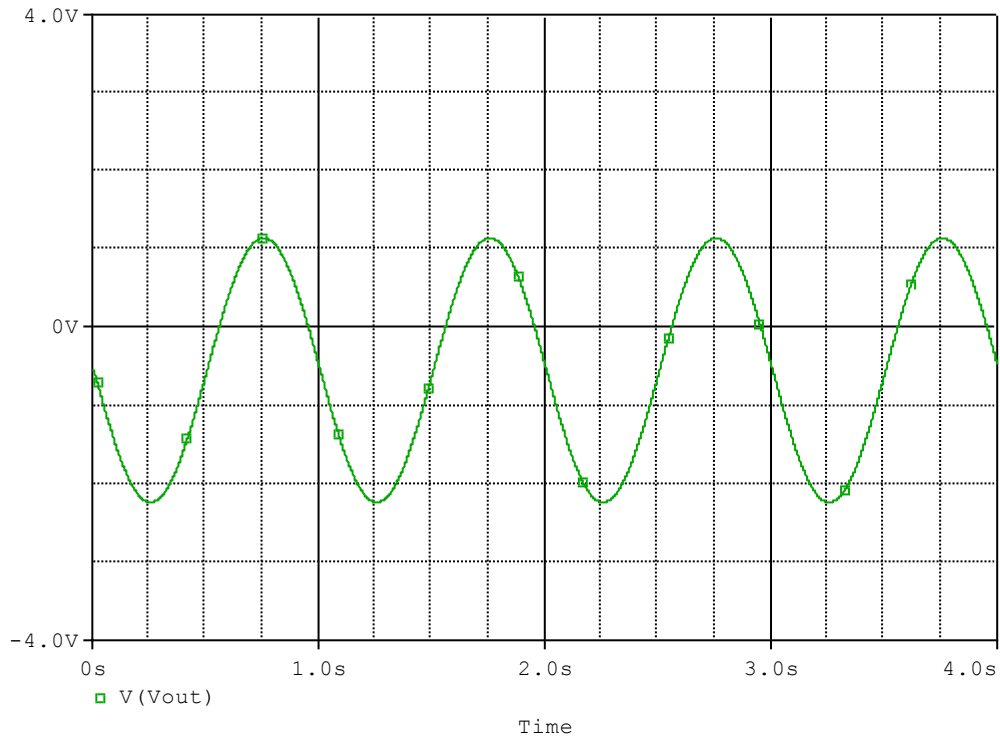


Comparison table

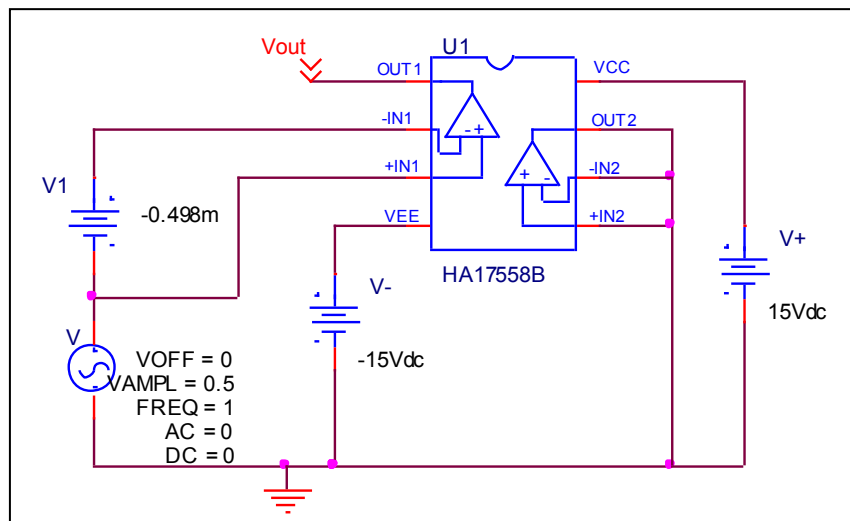
	Measurement	Simulation	%Error
f-0dB(MHz)	7.000	6.670	-4.714
Av-dc(dB)	110.000	110.097	0.088

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio = $20 \cdot \text{LOG}(319779.1441/3.3789) = 99.5214 \text{ dB}$

CMRR (dB)	Measurement	Simulation	%Error
		100.000	99.521