

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ331
THERMAL: TA=80 (degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

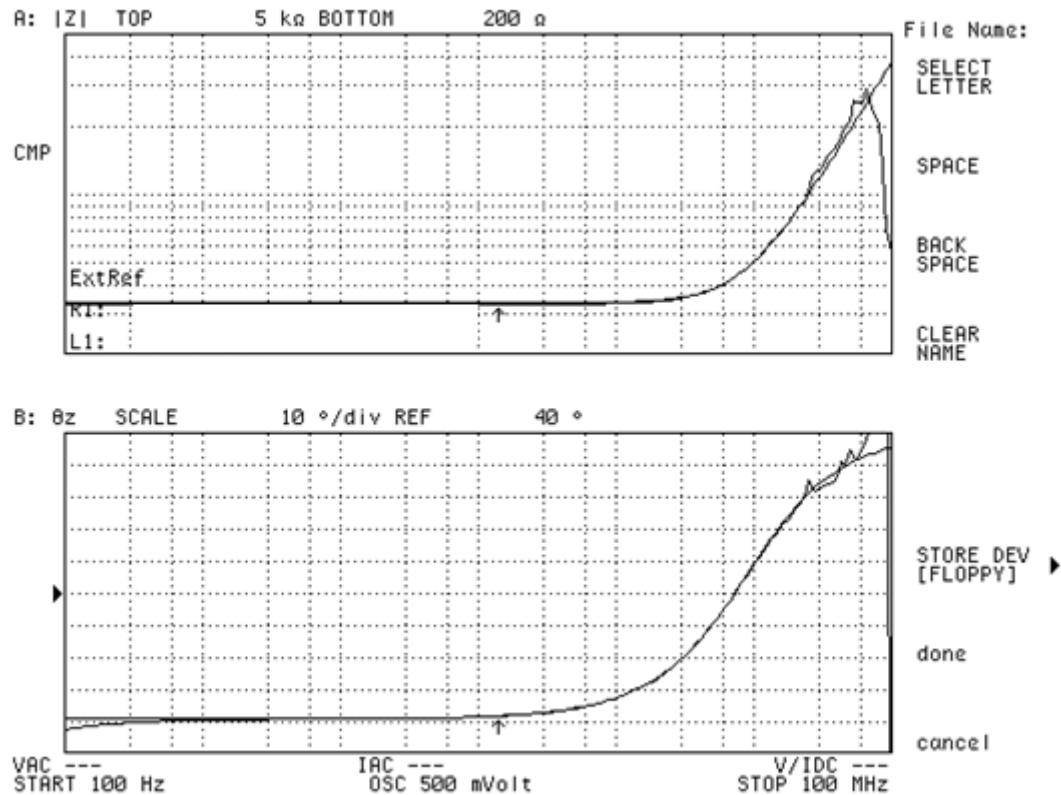
Optimization of Simulation

Range of adjustment Frequency: 100 to 100M(Hz)

Frequency vs. $|Z|$ and Frequency vs. θz Characteristic

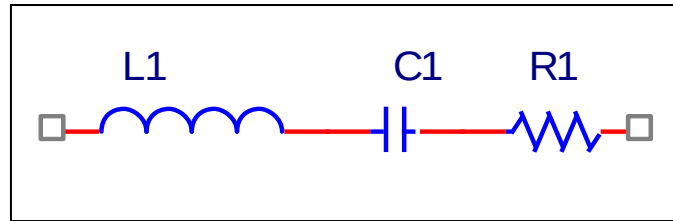
Attention

Please use SPICE MODEL within the range from 100 to 100M(H



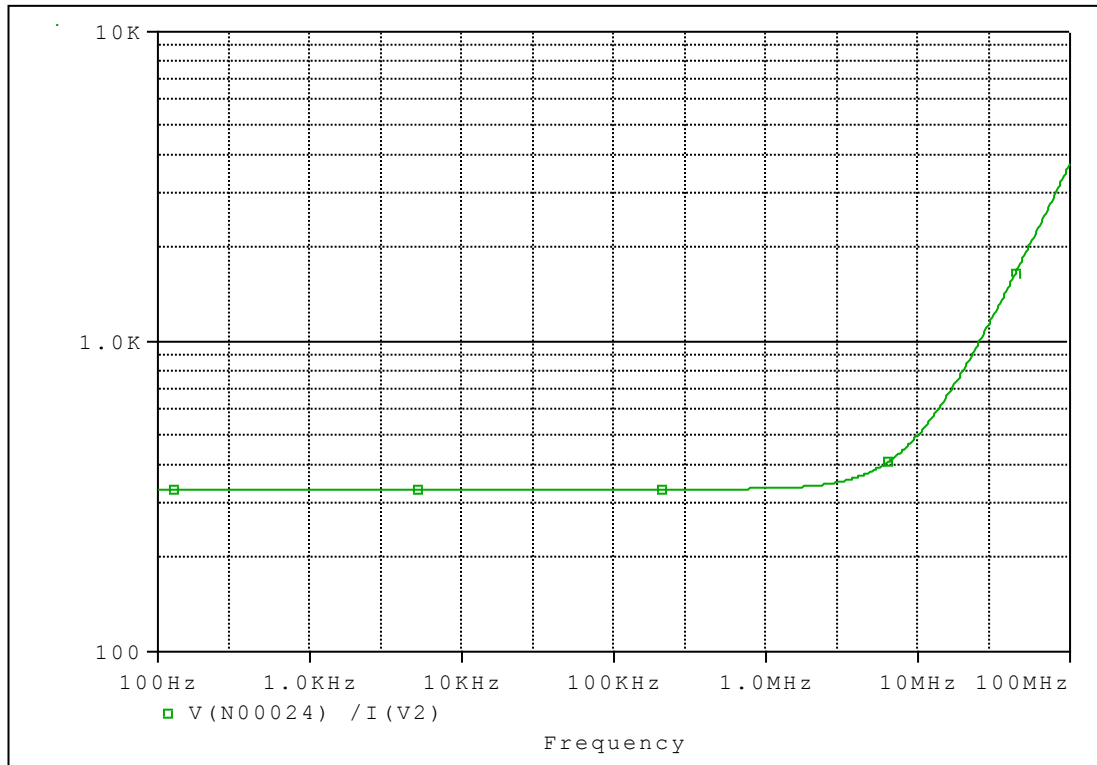
Measurement		
R1		
L1		
C1		

Equivalent circuit

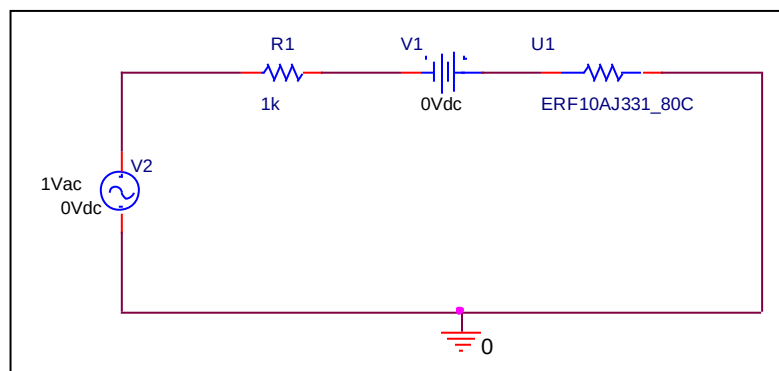


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	330.040	351.341	6.454
1K	330.175	334.373	1.271
10K	329.967	334.363	1.332
100K	330.158	334.384	1.280
1M	332.792	336.432	1.094
10M	509.615	500.606	1.768