

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AK3R3
THERMAL: TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

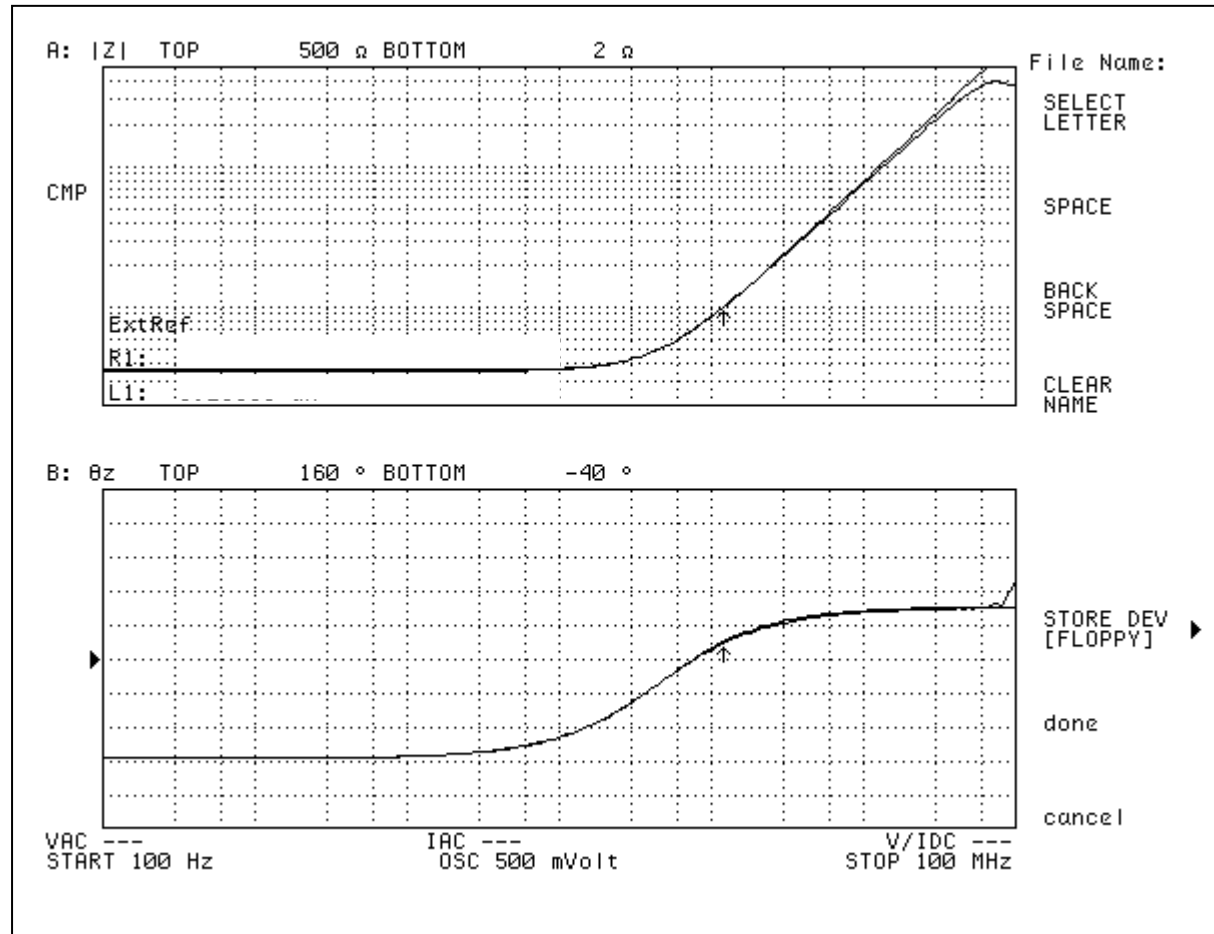
Optimization of Simulation

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

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

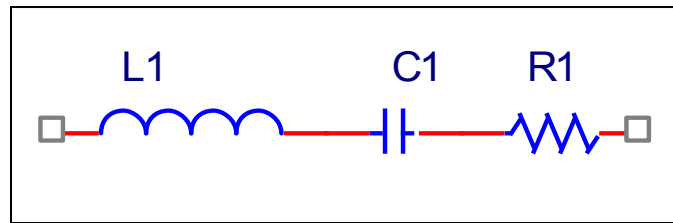
Attention

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



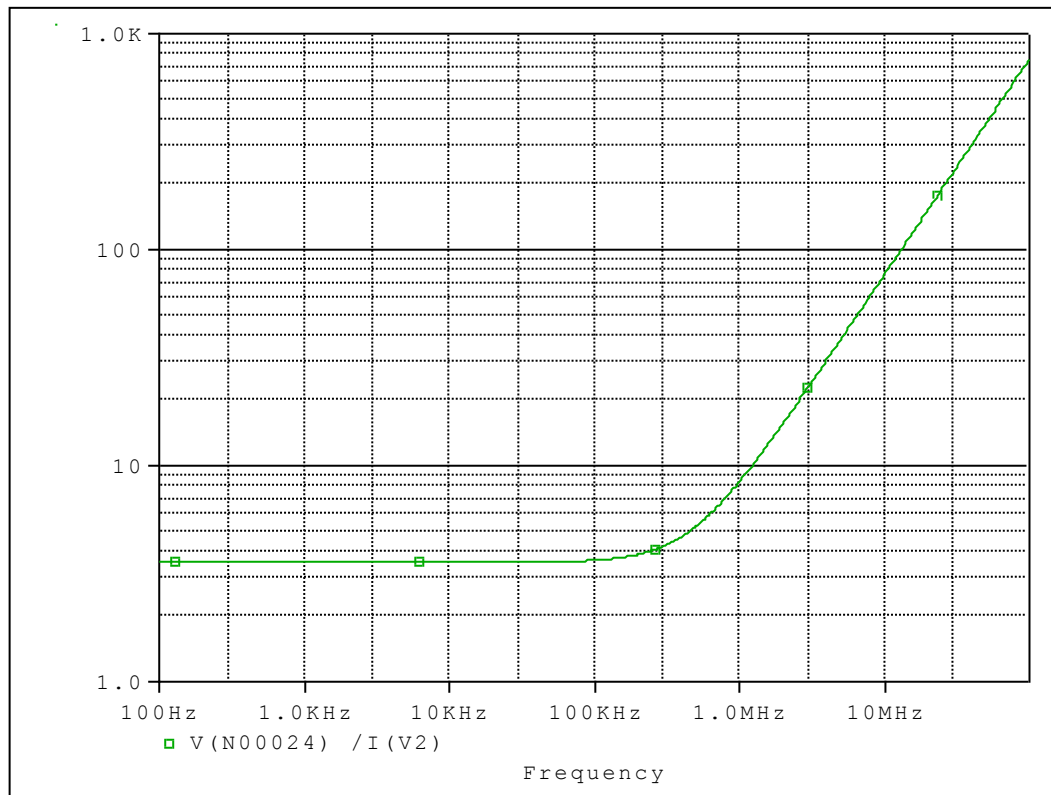
Measurement		
R1		
L1		
C1		

Equivalent circuit

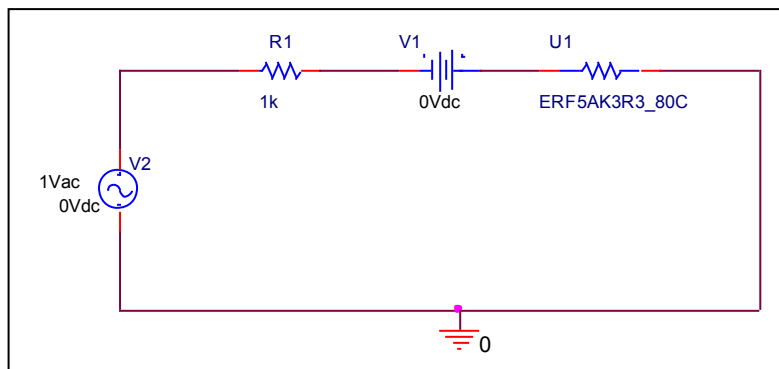


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	3.500	3.569	1.952
1K	3.504	3.569	1.860
10K	3.508	3.570	1.764
100K	3.598	3.650	1.428
1M	8.711	8.438	3.130
10M	74.674	76.547	2.508