

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AK3R3
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

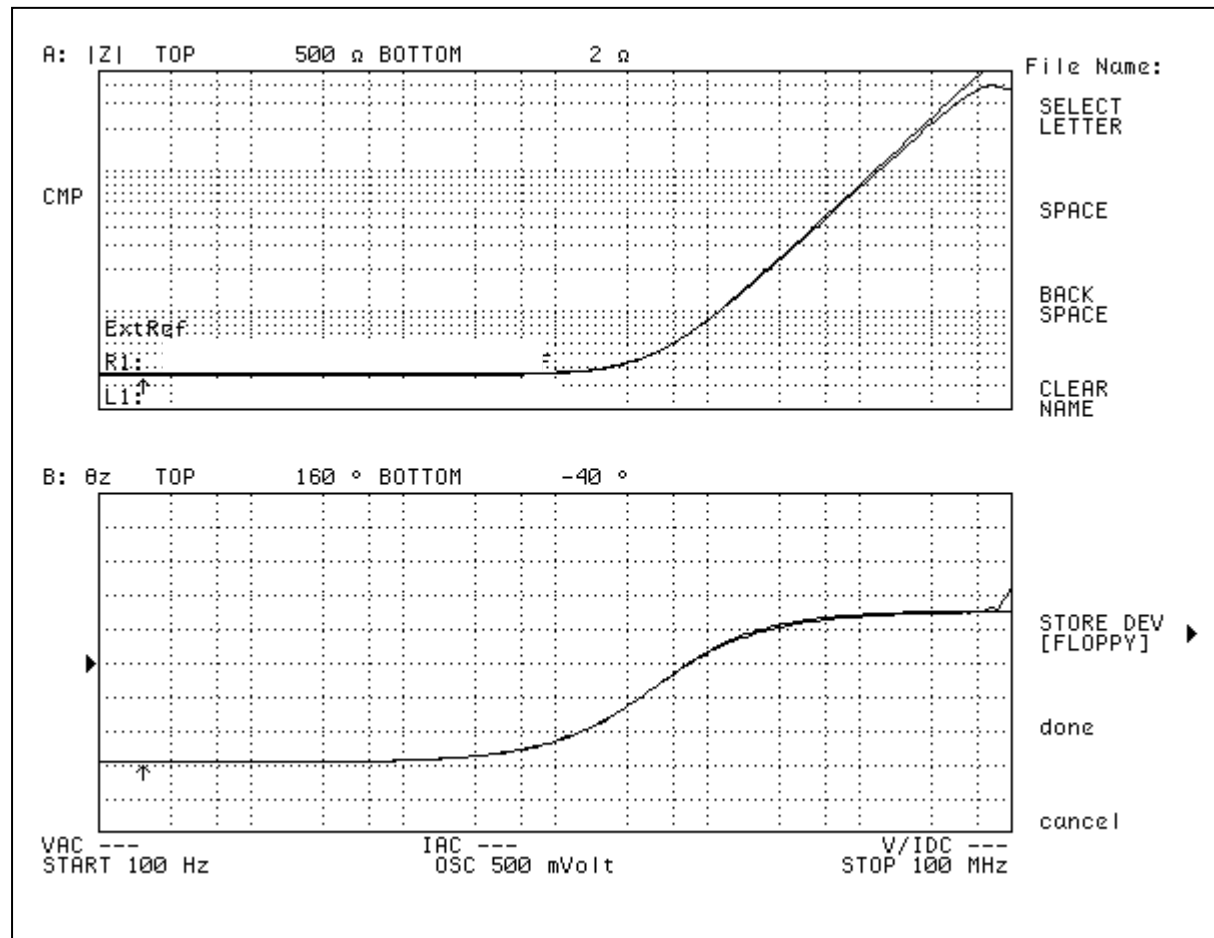
Optimization of Simulation

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

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

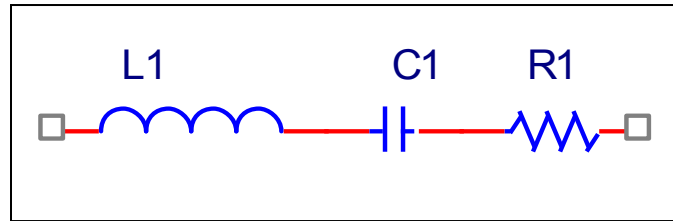
Attention

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



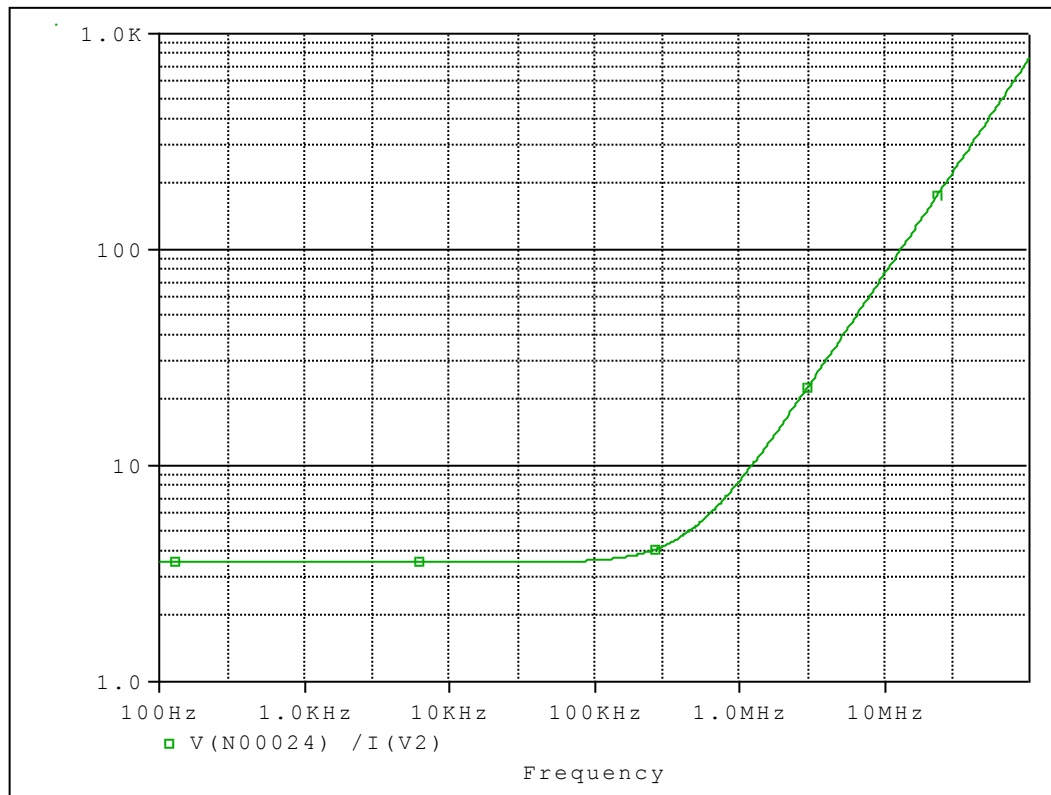
Measurement		
R1		
L1		
C1		

Equivalent circuit

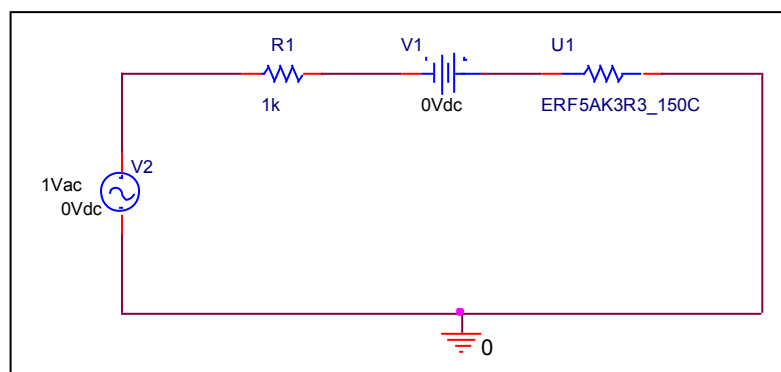


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	3.501	3.568	1.923
1K	3.502	3.568	1.890
10K	3.505	3.569	1.834
100K	3.595	3.651	1.559
1M	8.761	8.491	3.085
10M	750.740	770.440	2.624