

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ100
THERMAL: TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

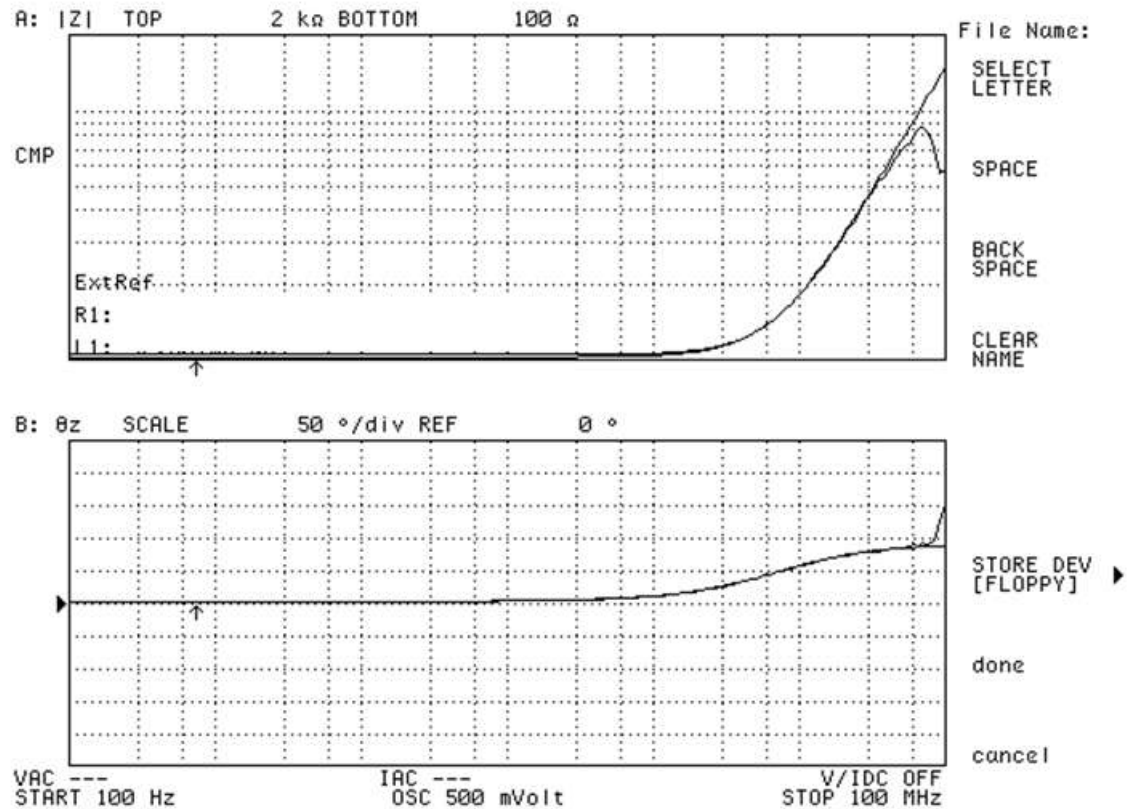
Optimization of Simulation

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

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

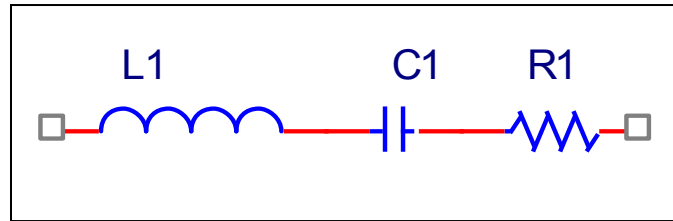
Attention

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



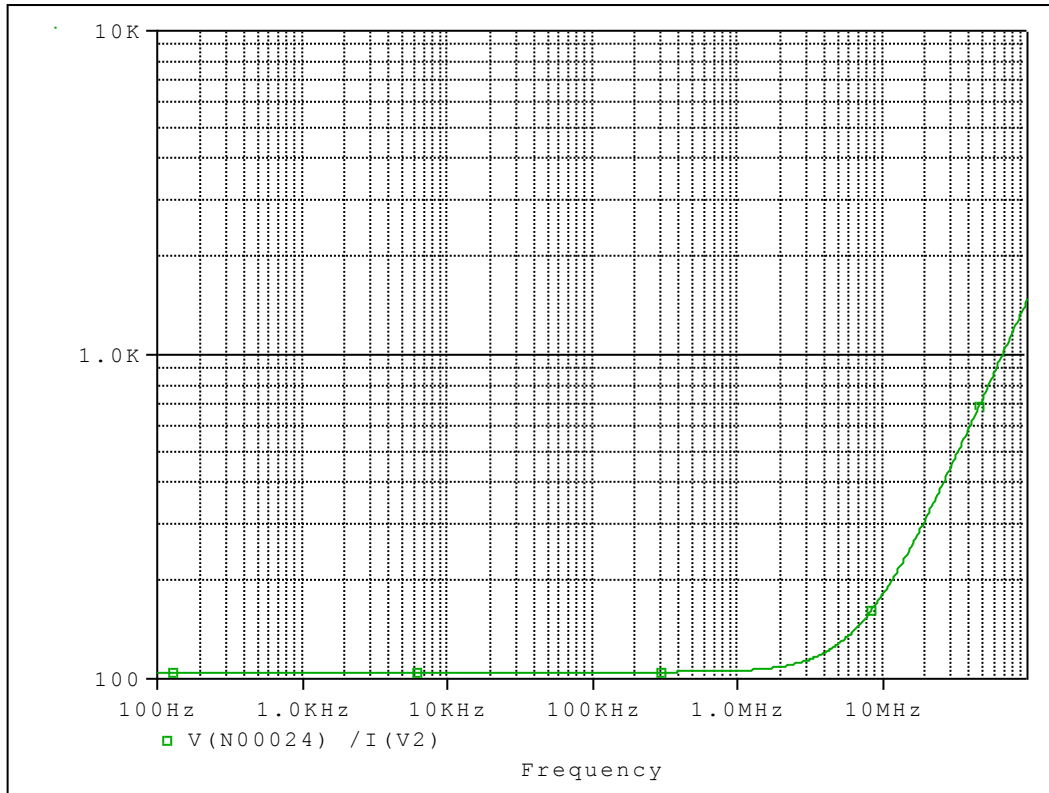
Measurement		
R1		
L1		
C1		

Equivalent circuit

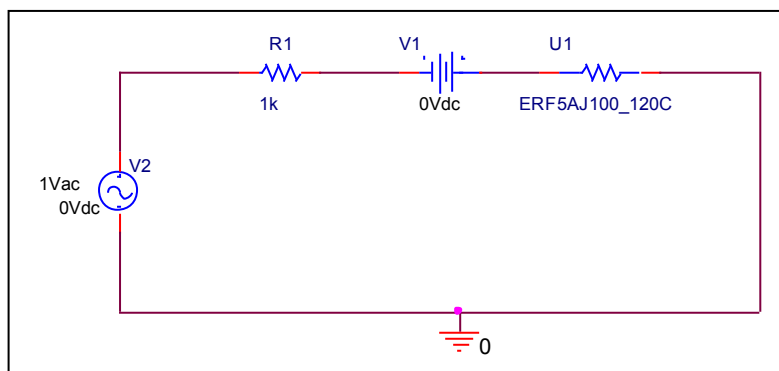


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	102.637	104.945	2.249
1K	102.665	104.945	2.221
10K	102.685	104.945	2.201
100K	102.613	104.955	2.283
1M	104.372	105.985	1.546
10M	183.616	181.221	1.304