

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ120
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

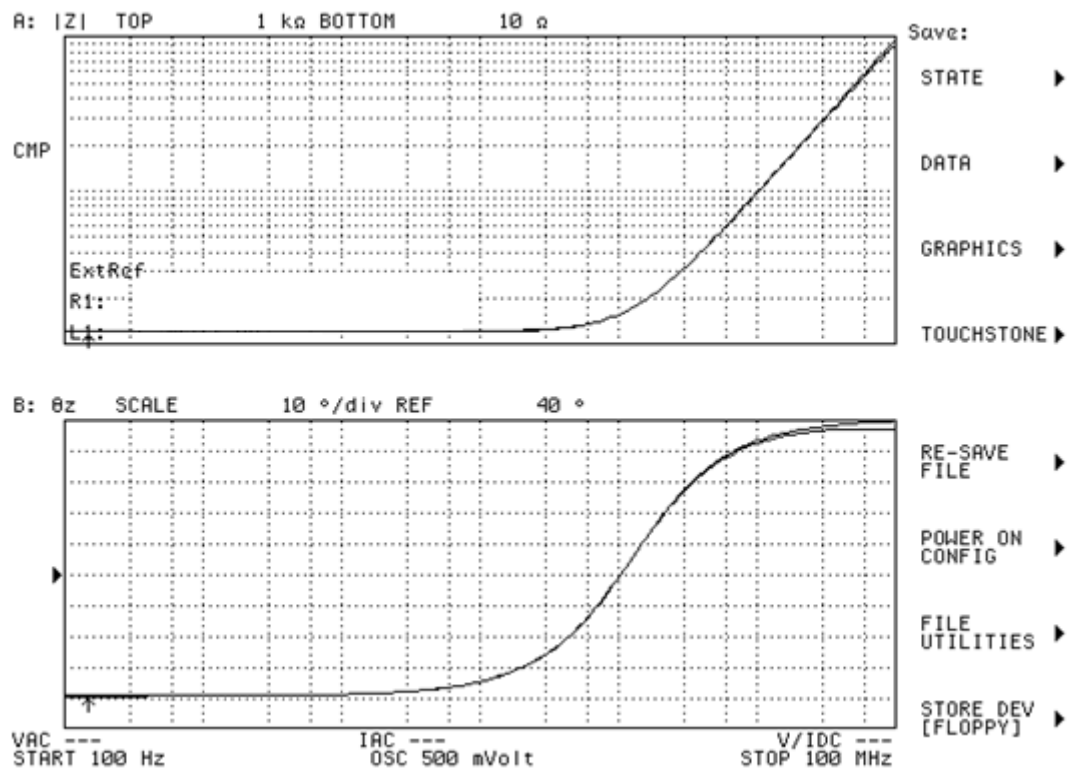
Optimization of Simulation

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)



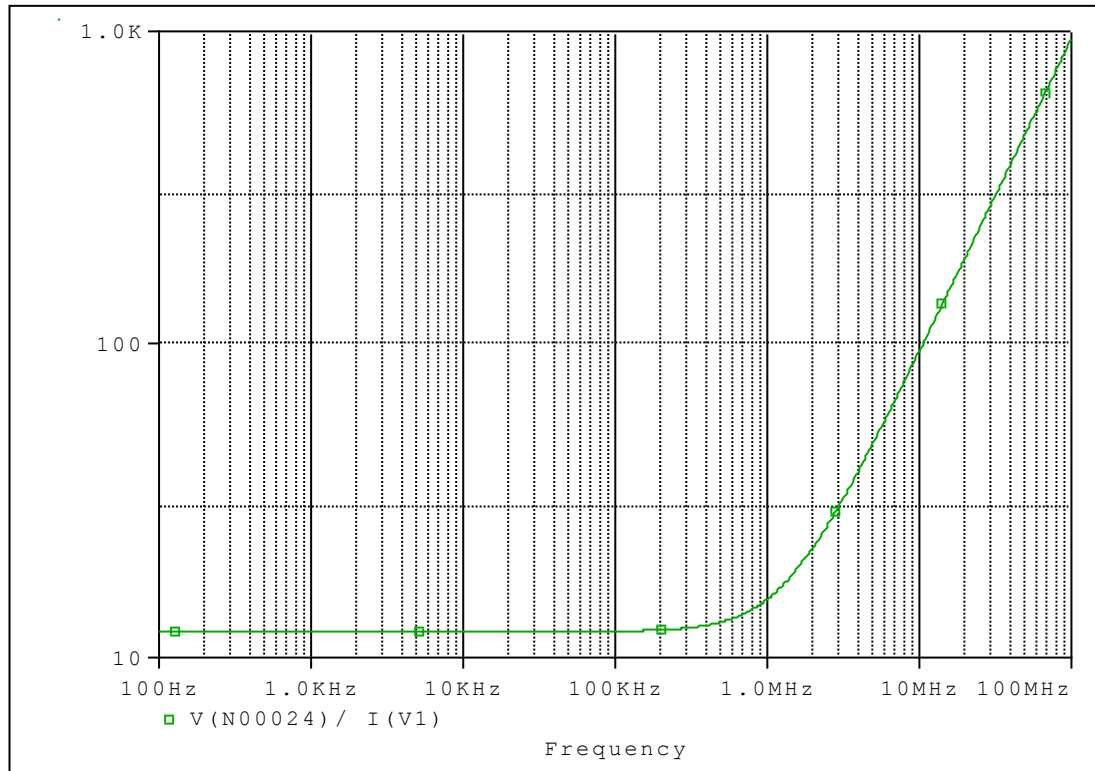
Measurement		
R1		
L1		
C1		

Equivalent circuit

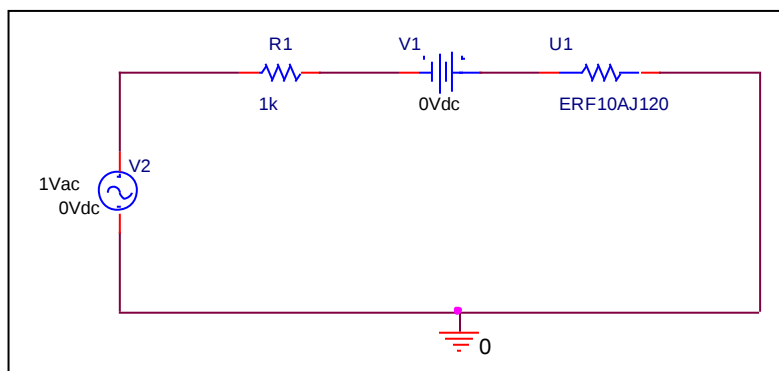


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	11.988	12.112	1.038
1K	11.990	12.109	0.992
10K	11.988	12.110	1.018
100K	12.031	12.146	0.956
1M	15.361	15.367	0.039
10M	94.384	95.426	1.104
100M	877.139	946.149	7.868