

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ121
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

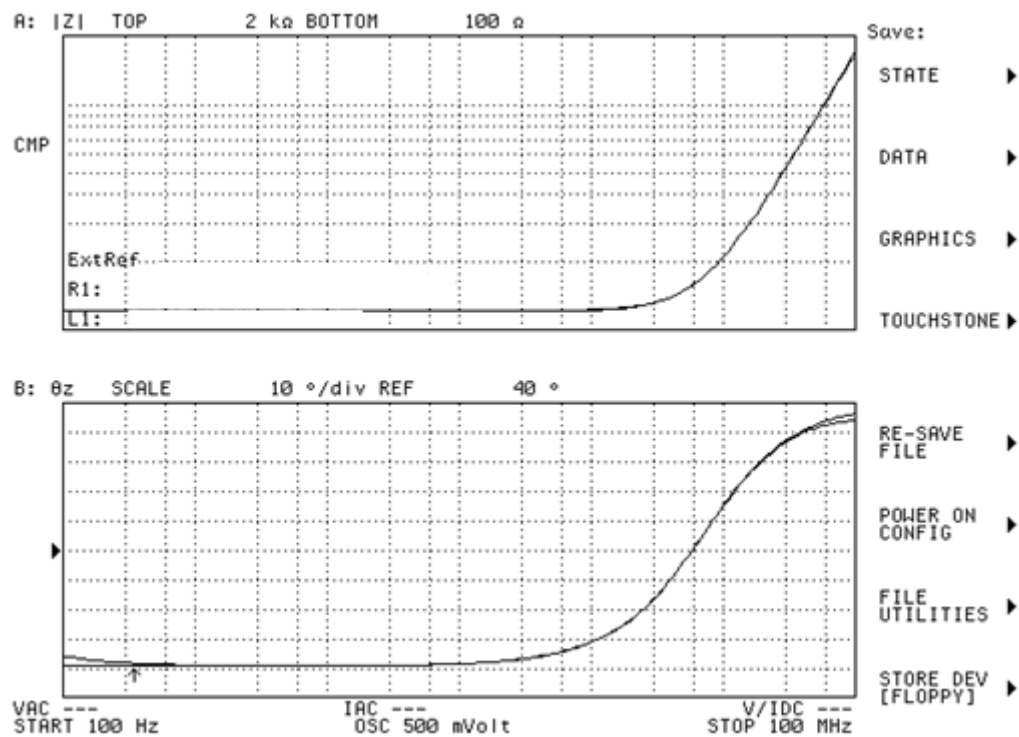
Optimization of Simulation

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)



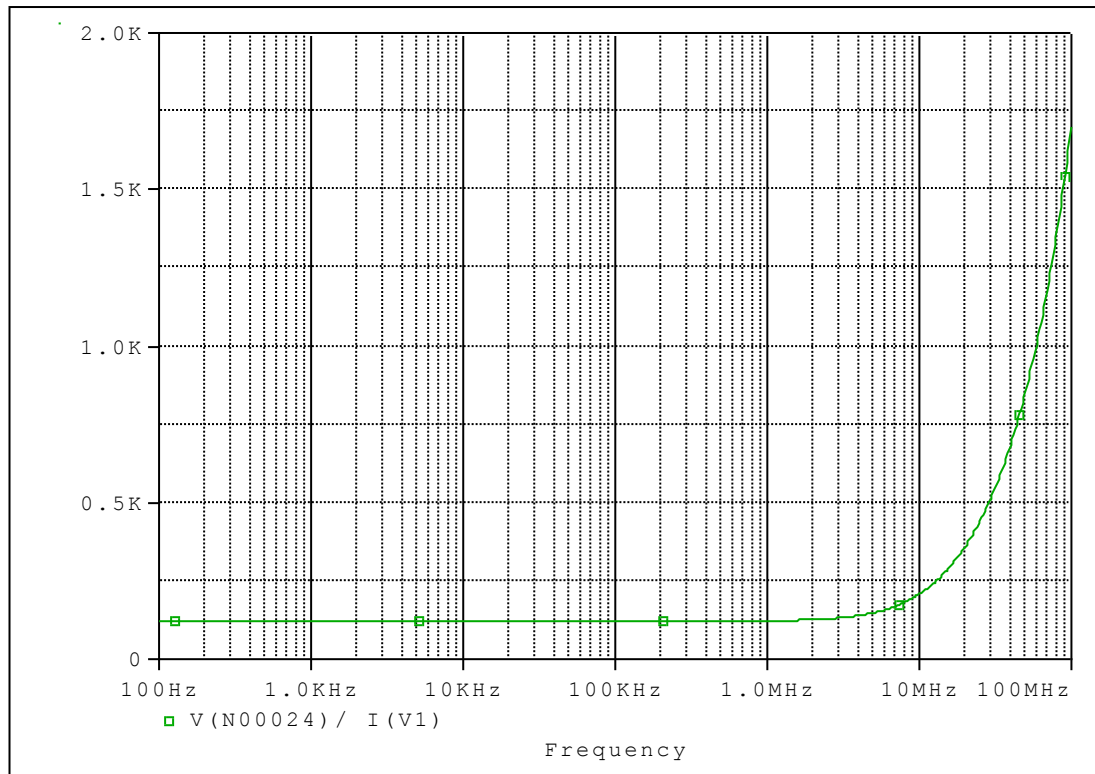
Measurement		
R1		
L1		
C1		

Equivalent circuit

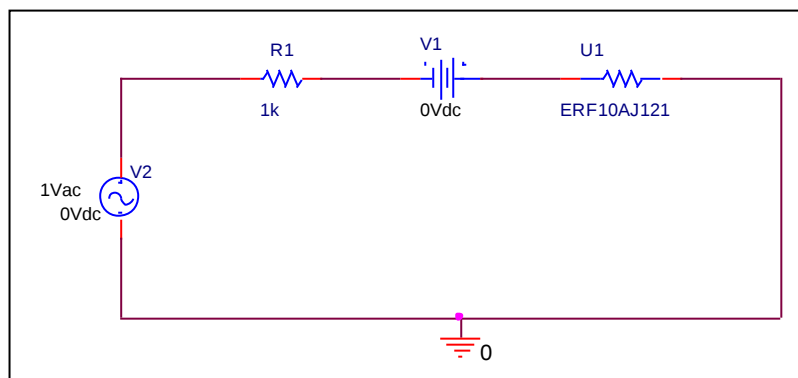


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	120.487	121.974	1.234
1K	120.505	121.561	0.876
10K	120.480	121.558	0.895
100K	120.509	121.570	0.880
1M	121.818	122.732	0.750
10M	208.603	208.451	0.073
100M	1.630	1.698	4.128