

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ121
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

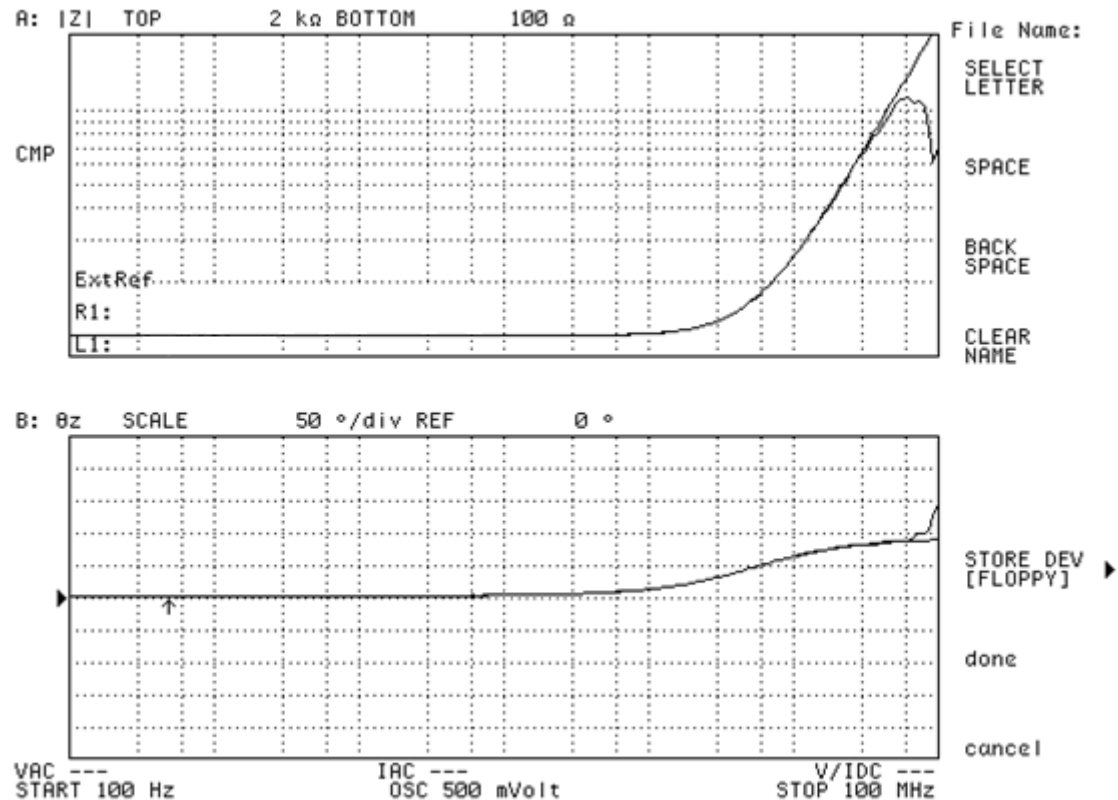
Optimization of Simulation

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)



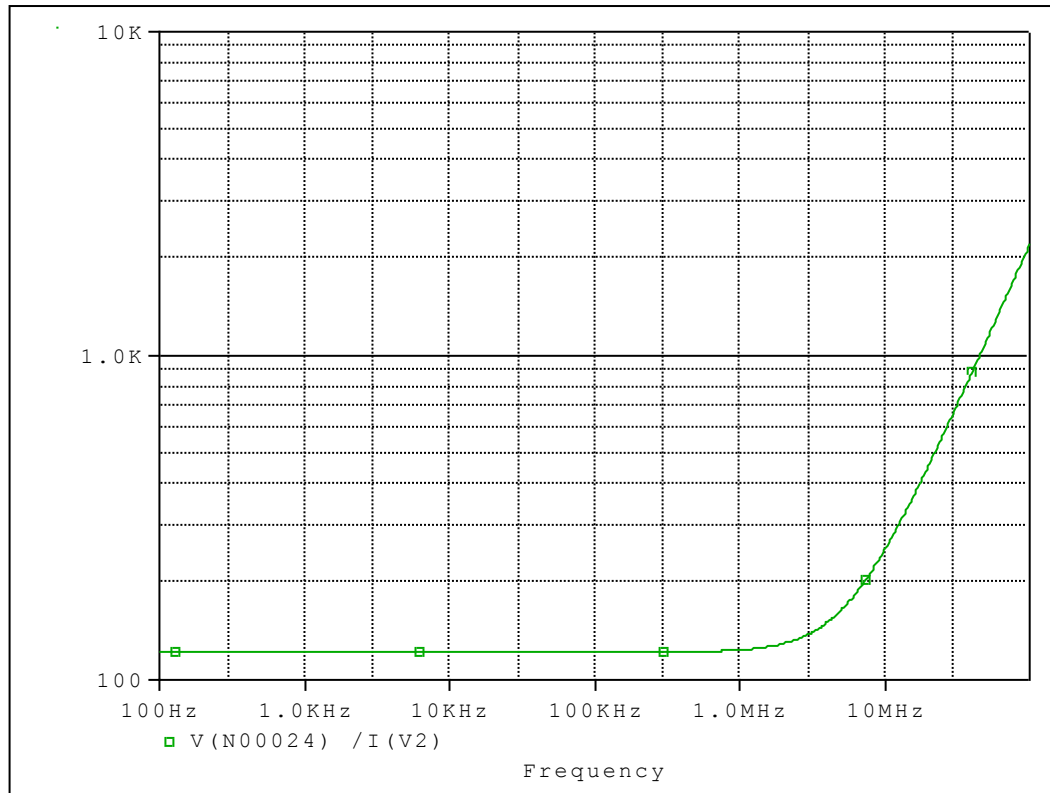
Measurement		
R1		
L1		
C1		

Equivalent circuit

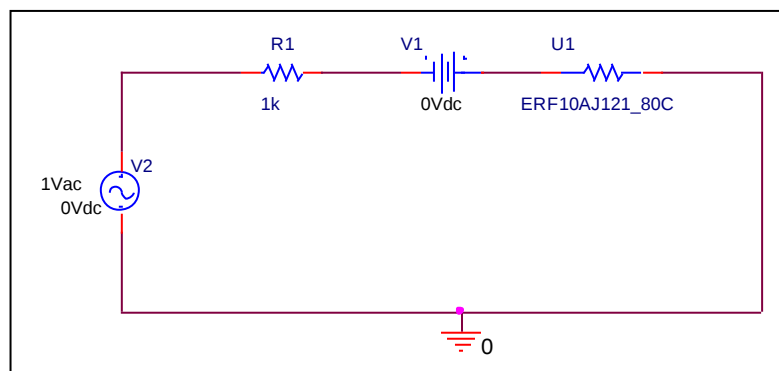


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	121.531	122.262	0.602
1K	121.561	121.775	0.176
10K	121.506	121.770	0.217
100K	121.593	121.790	0.162
1M	123.954	123.739	0.174
10M	254.648	251.352	1.294