

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ510
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

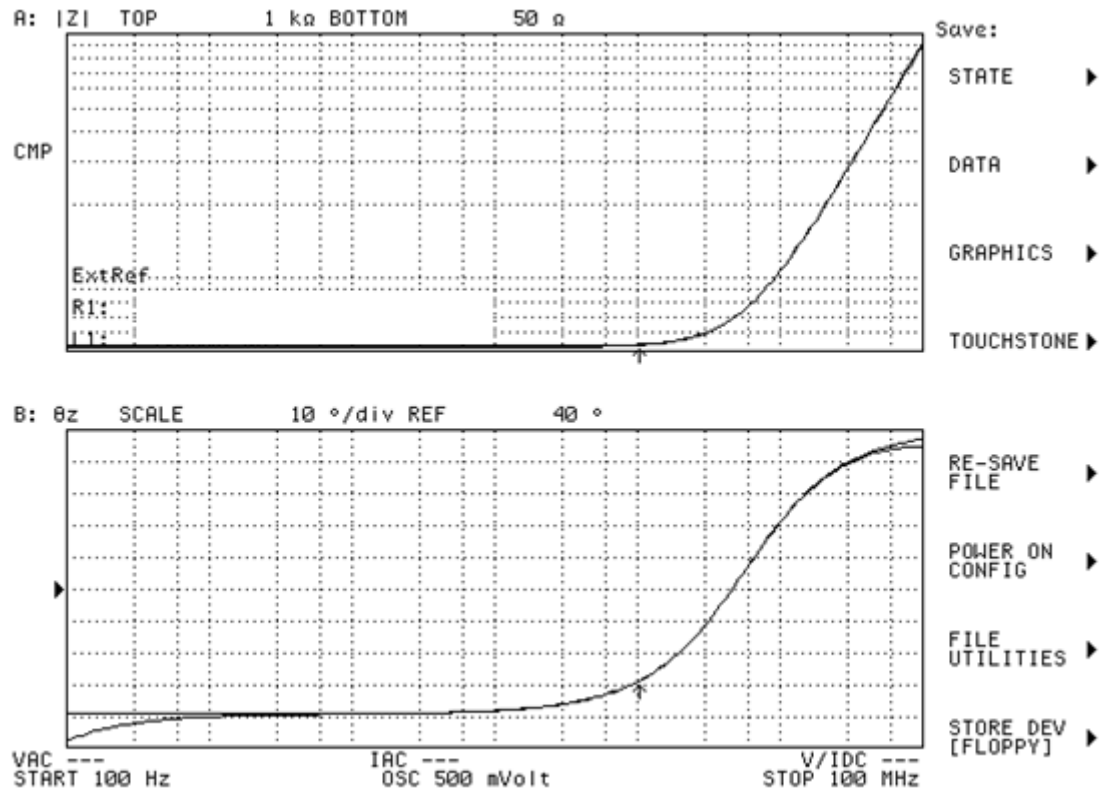
Optimization of Simulation

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)



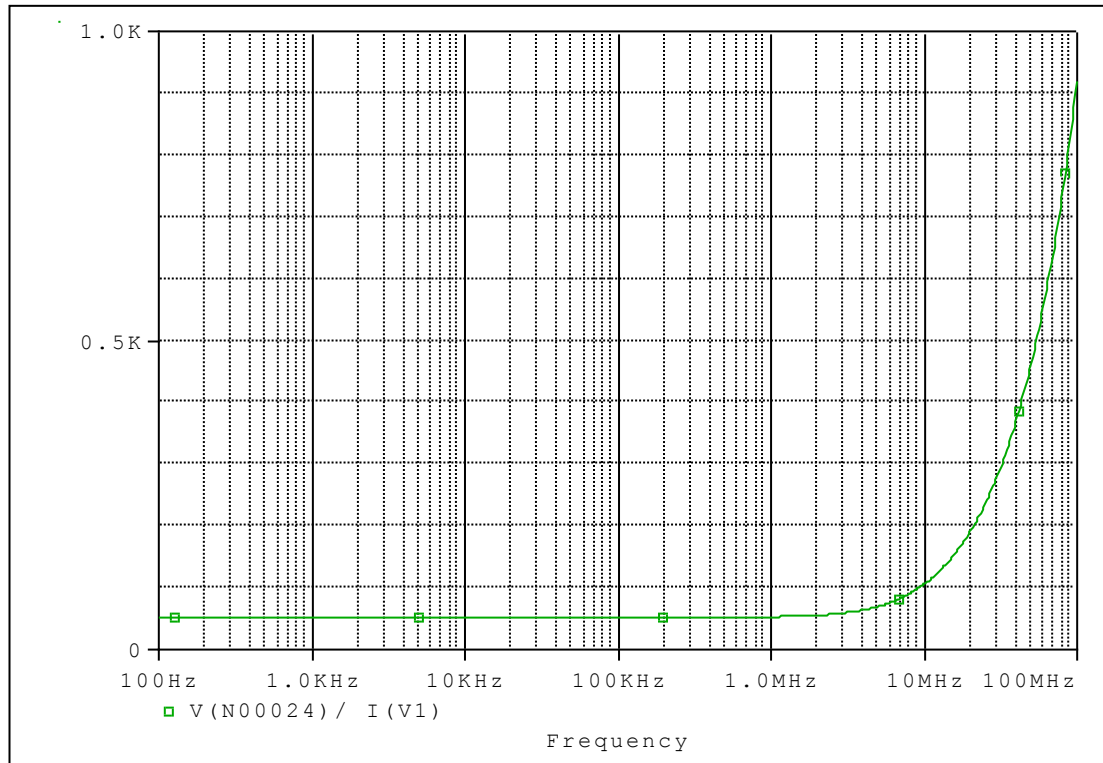
Measurement		
R1		
L1		
C1		

Equivalent circuit

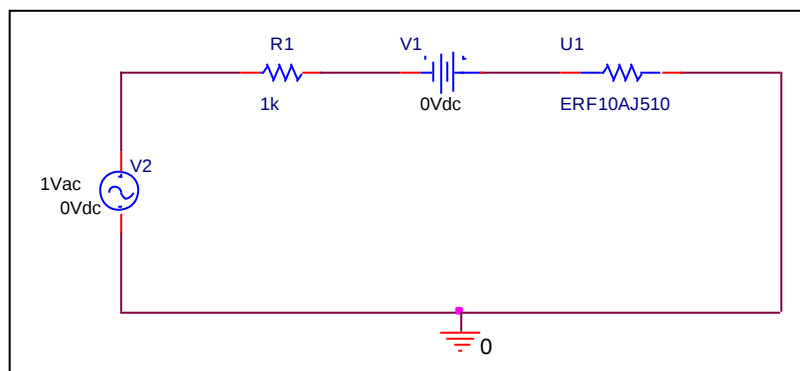


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	51.591	52.985	2.702
1K	51.964	52.385	0.811
10K	51.948	52.379	0.830
100K	51.965	52.387	0.812
1M	52.857	53.176	0.604
10M	105.655	105.651	0.004
100M	884.994	919.027	3.846