

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ150
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

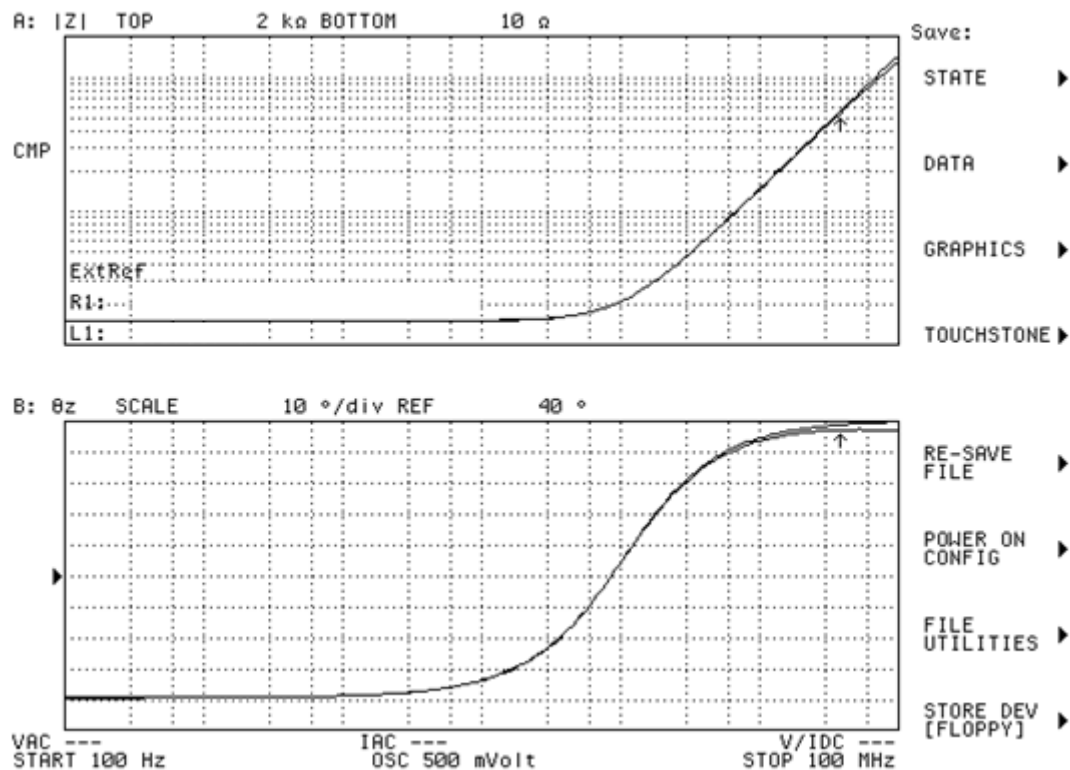
Optimization of Simulation

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)



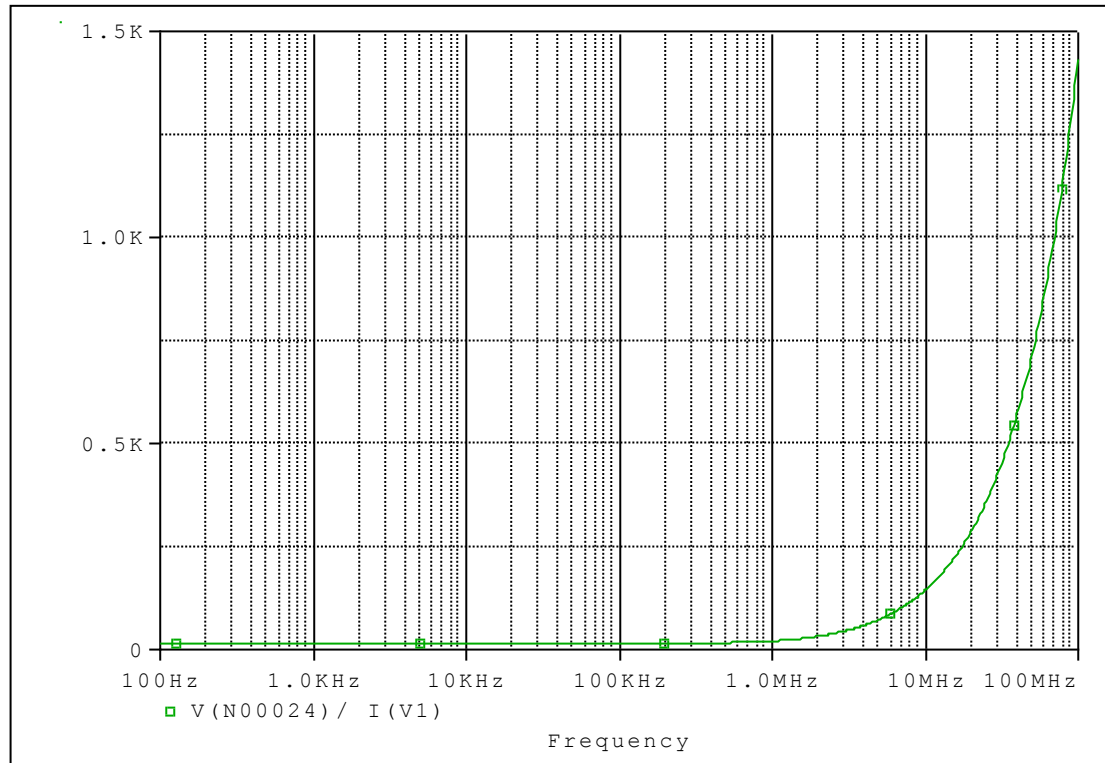
Measurement		
R1		
L1		
C1		

Equivalent circuit

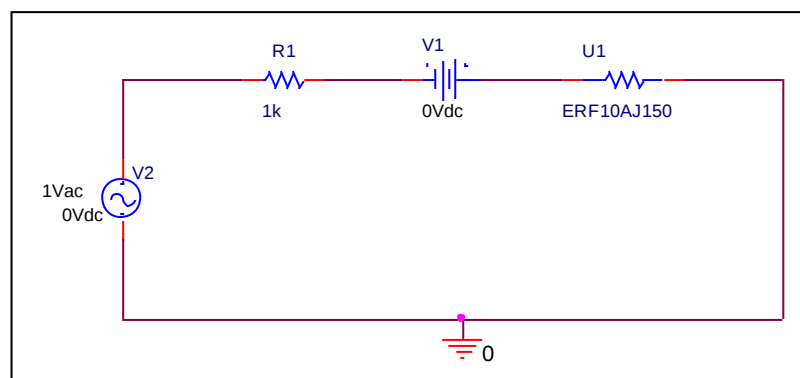


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	14.999	15.145	0.971
1K	15.000	15.145	0.968
10K	15.000	15.145	0.969
100K	15.076	15.212	0.902
1M	20.854	20.846	0.038
10M	142.055	144.047	1.402
100M	1.295	1.343	3.684