

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ151
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

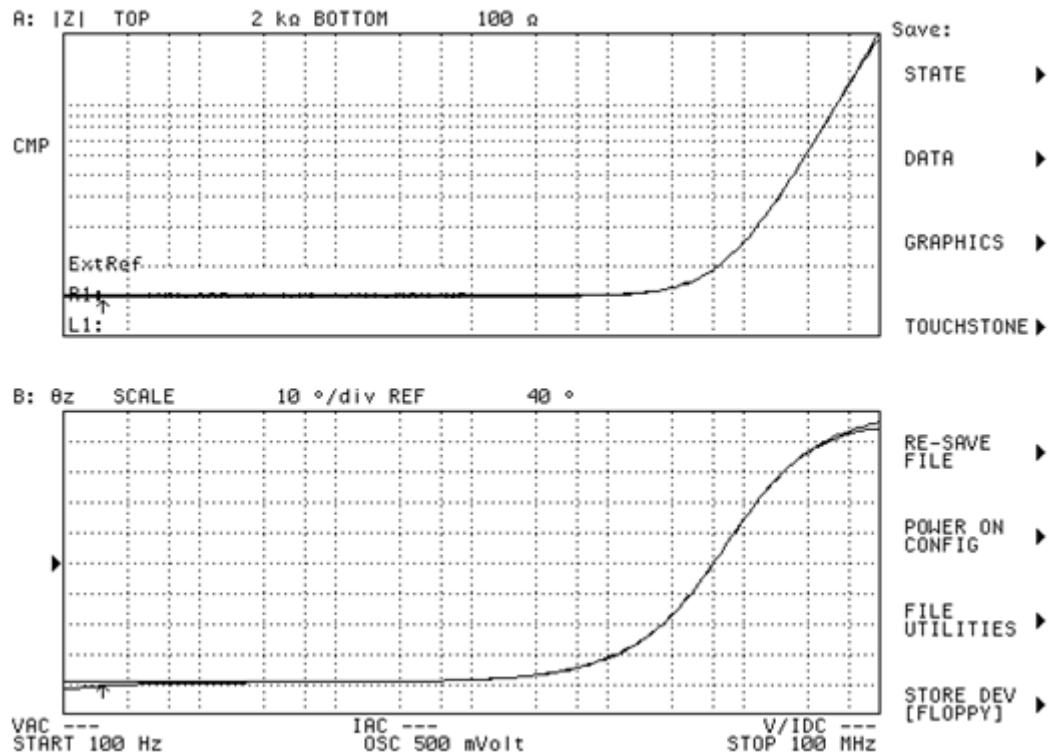
Optimization of Simulation

Range of adjustment Frequency: 100 to 100M(Hz)

Frequency vs. $|Z|$ and Frequency vs. θz Characteristic

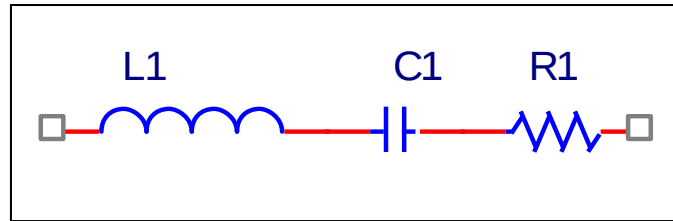
Attention

Please use SPICE MODEL within the range from 100 to 100M(Hz)



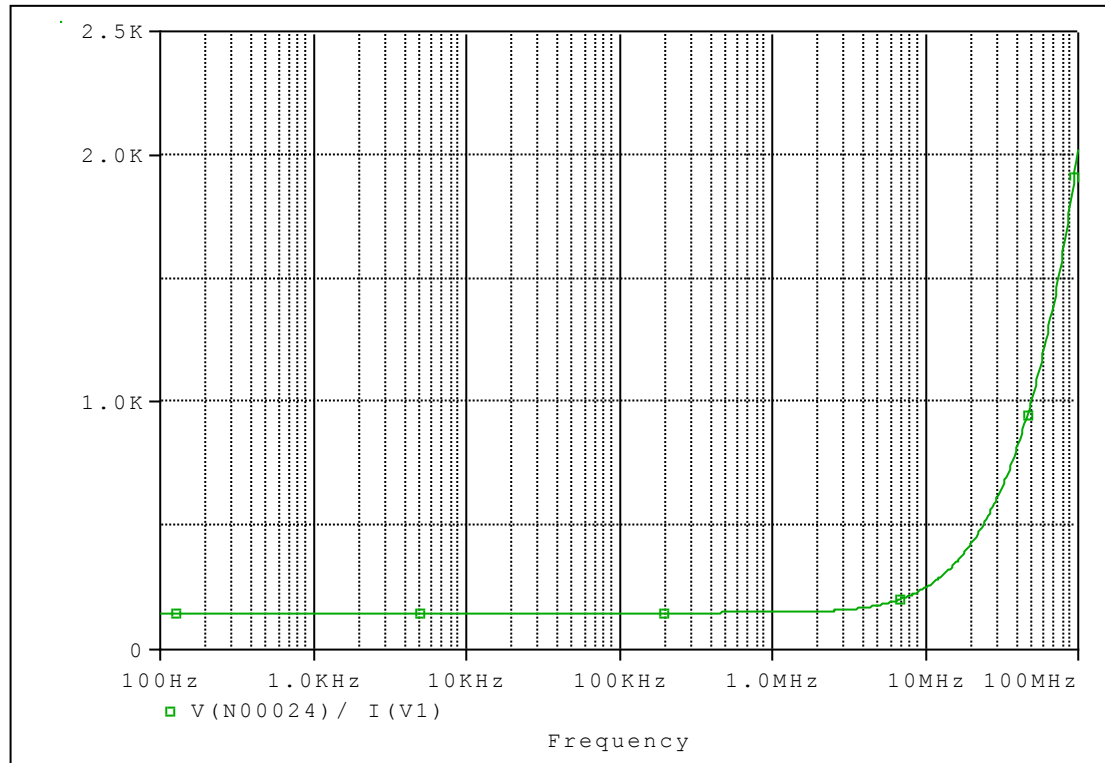
Measurement		
R1		
L1		
C1		

Equivalent circuit

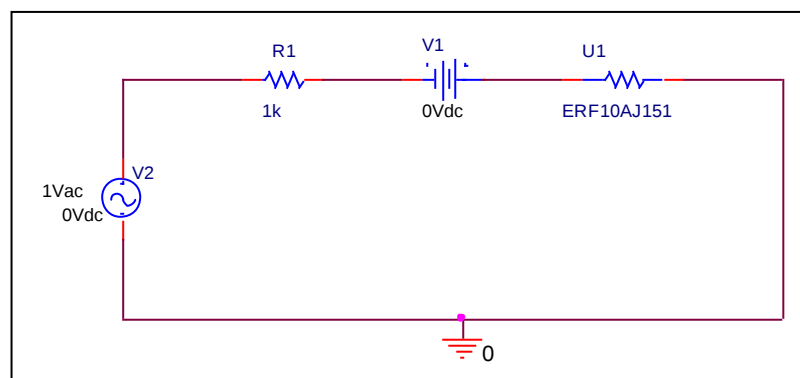


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	148.289	149.530	0.837
1K	148.350	149.386	0.698
10K	148.294	149.385	0.736
100K	148.307	149.399	0.736
1M	149.880	150.738	0.572
10M	251.066	250.833	0.093
100M	1.899	2.020	6.366