

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ150
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

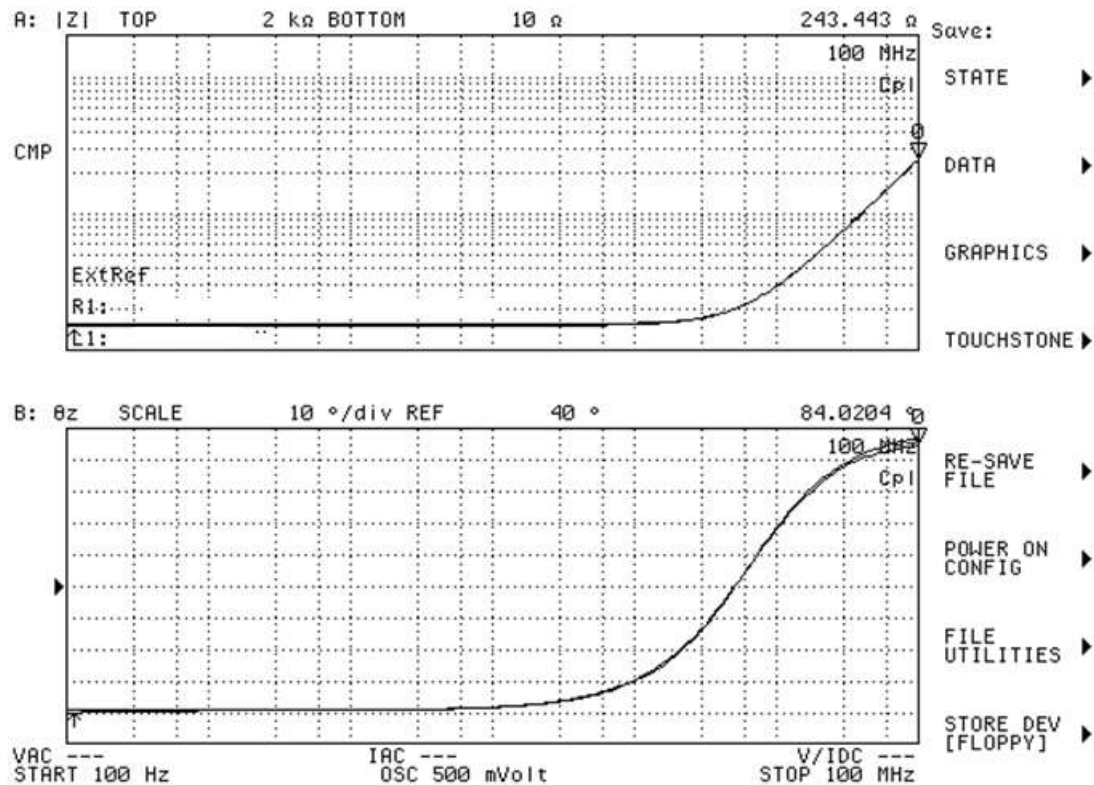
Optimization of Simulation

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

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

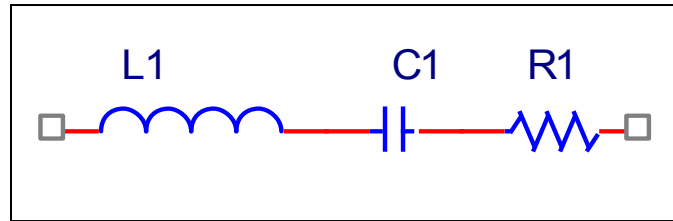
Attention

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



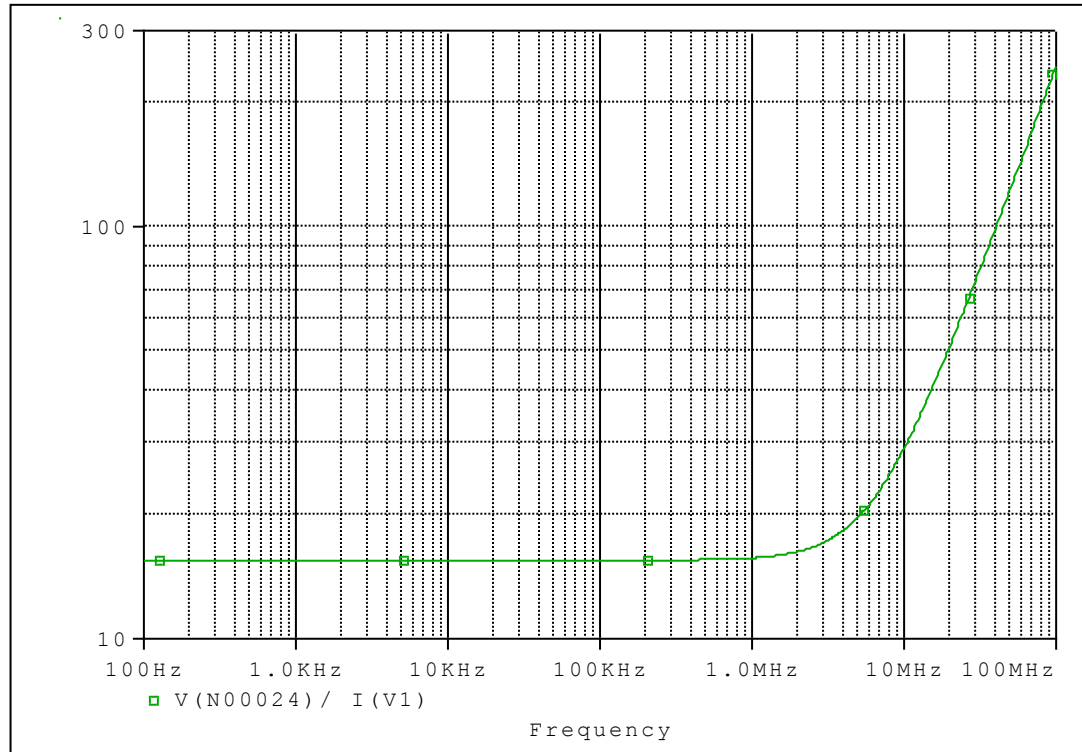
Measurement		
R1		
L1		
C1		

Equivalent circuit

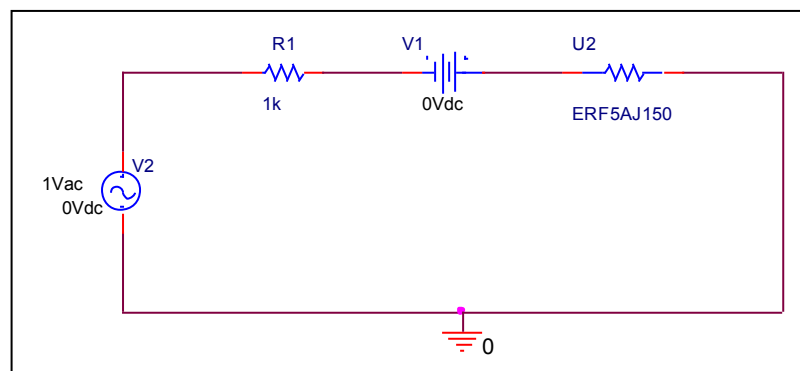


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	15.120	15.159	0.261
1K	15.121	15.158	0.245
10K	15.114	15.518	2.673
100K	15.123	15.520	2.625
1M	15.417	15.711	1.907
10M	28.995	29.118	0.424
100M	243.482	246.051	1.055