

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ150
THERMAL:TA=150(degree)



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

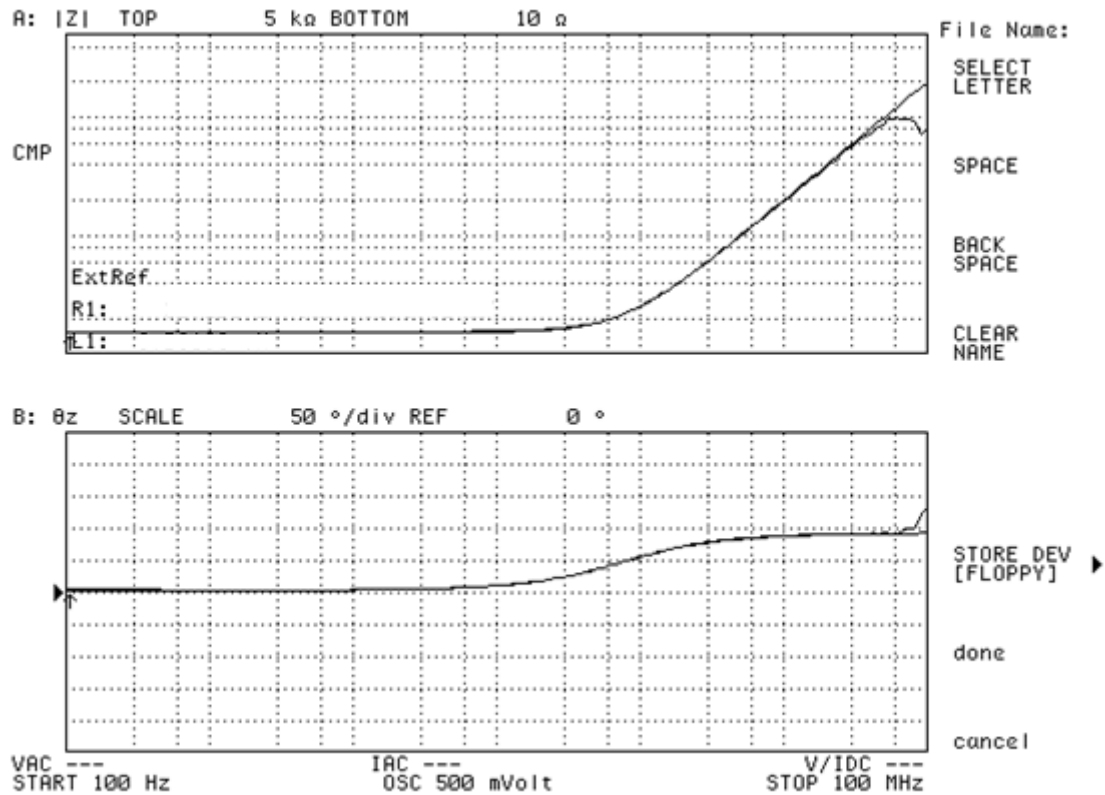
Optimization of Simulation

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

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

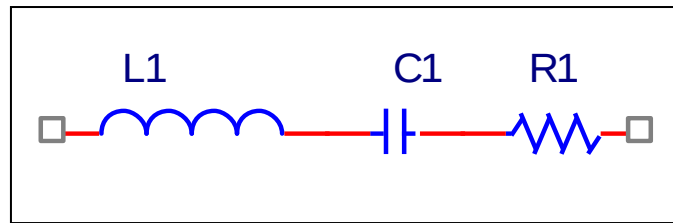
Attention

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



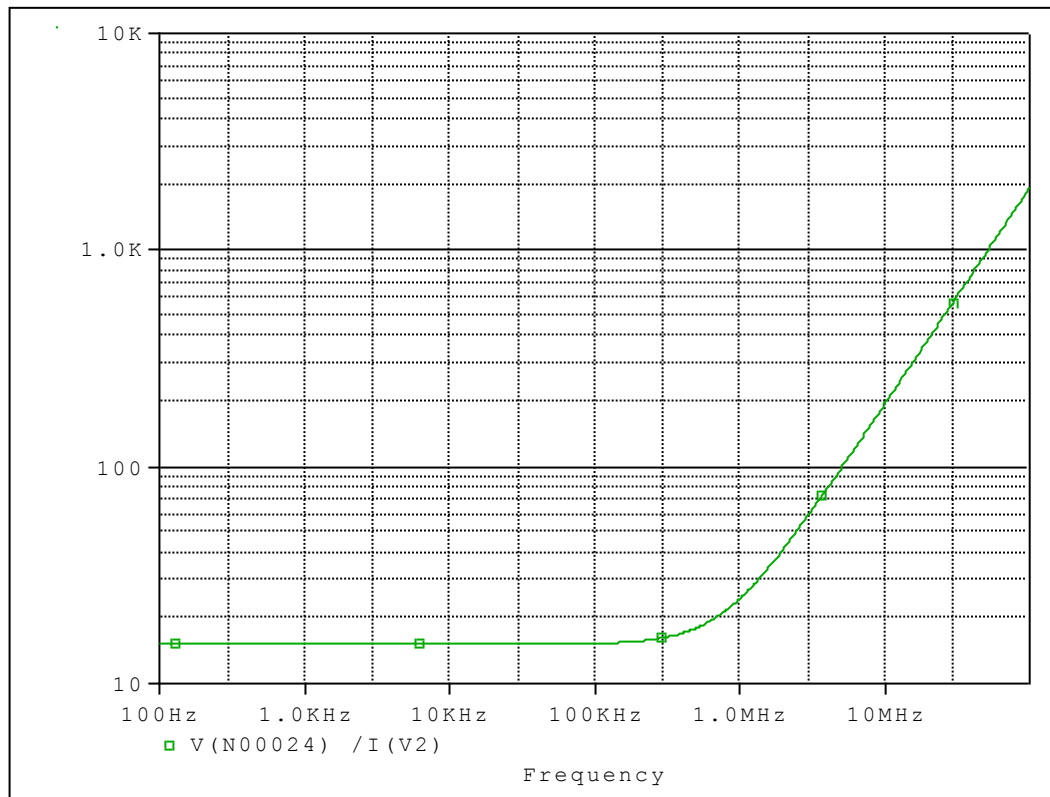
Measurement		
R1		
L1		
C1		

Equivalent circuit

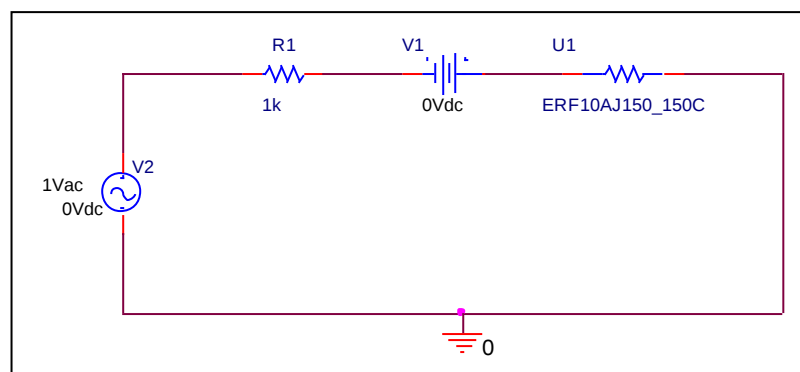


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	15.017	15.203	1.240
1K	15.023	15.203	1.200
10K	15.014	15.204	1.265
100K	15.150	15.236	0.567
1M	25.322	24.620	2.773
10M	194.080	194.243	0.084