

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ150
THERMAL: TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

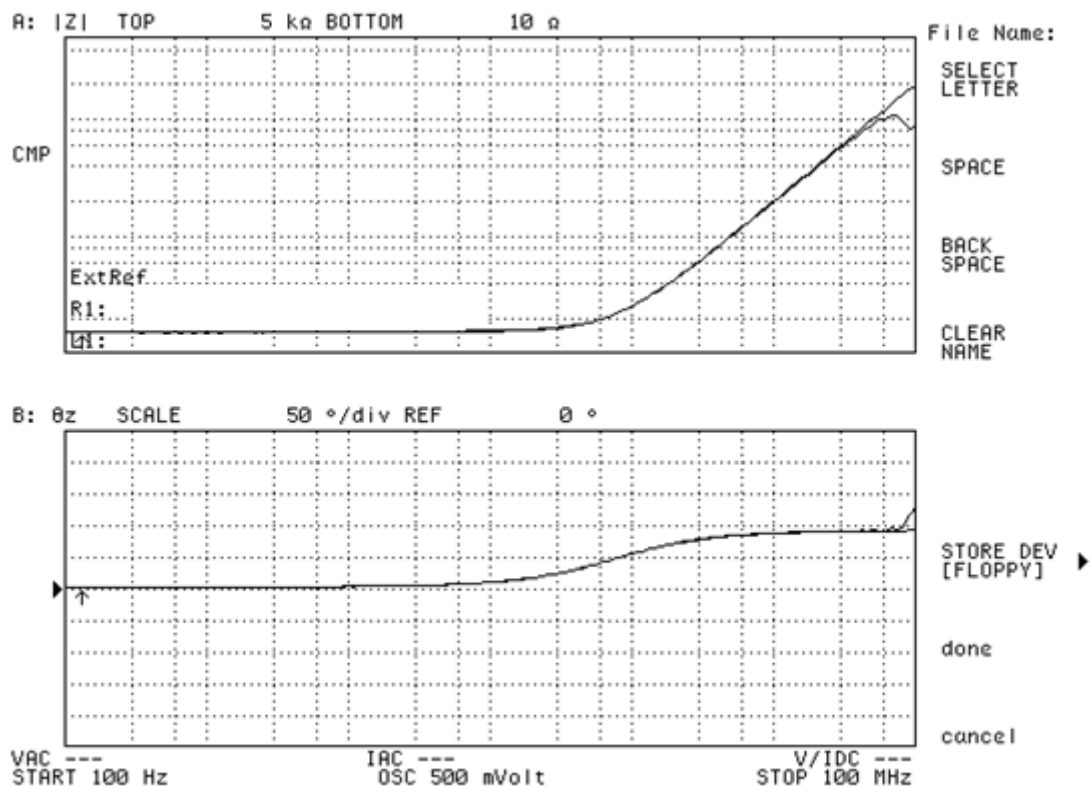
Optimization of Simulation

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

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

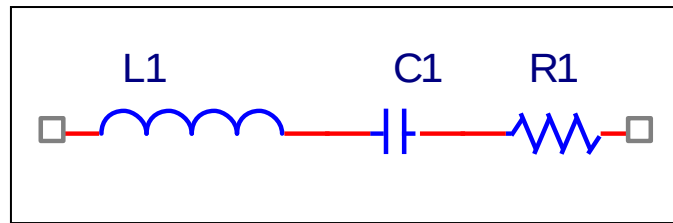
Attention

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



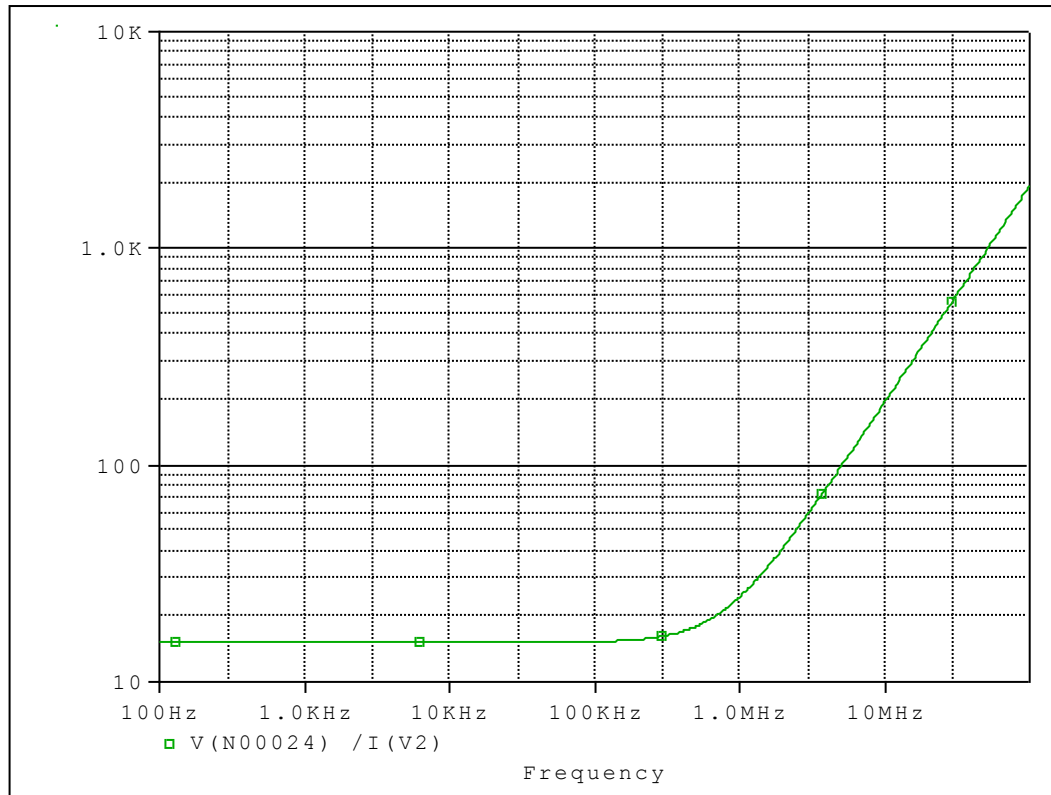
Measurement		
R1		
L1		
C1		

Equivalent circuit

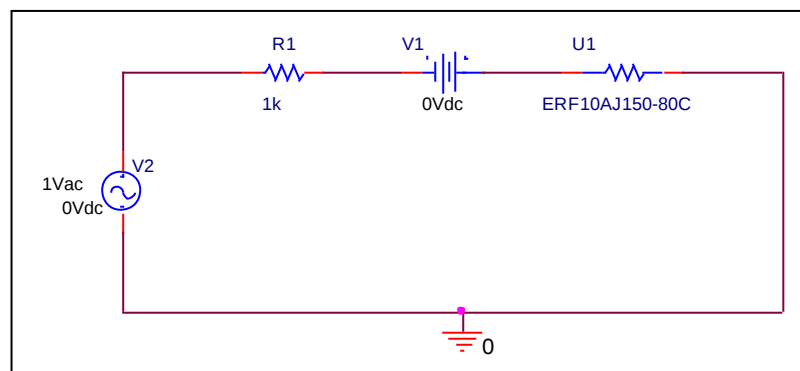


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	15.030	15.204	1.159
1K	15.030	15.204	1.161
10K	15.048	15.205	1.046
100K	15.160	15.327	1.103
1M	25.388	24.671	2.824
10M	195.163	194.893	0.138