

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ101
THERMAL:TA=150 (degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

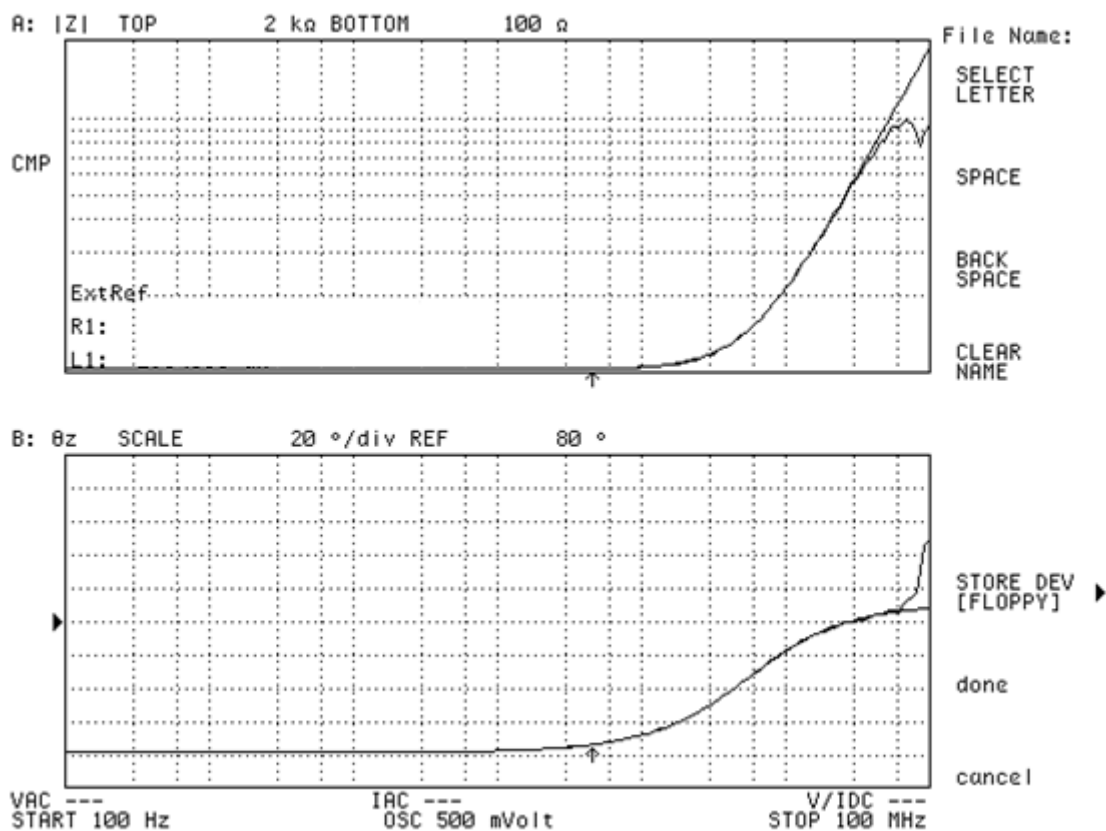
Optimization of Simulation

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

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

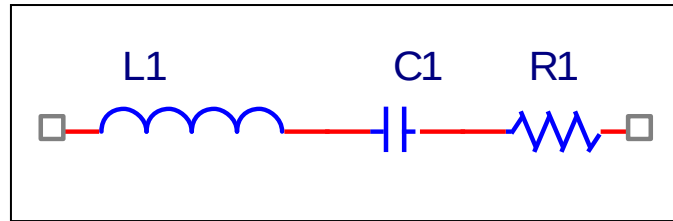
Attention

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



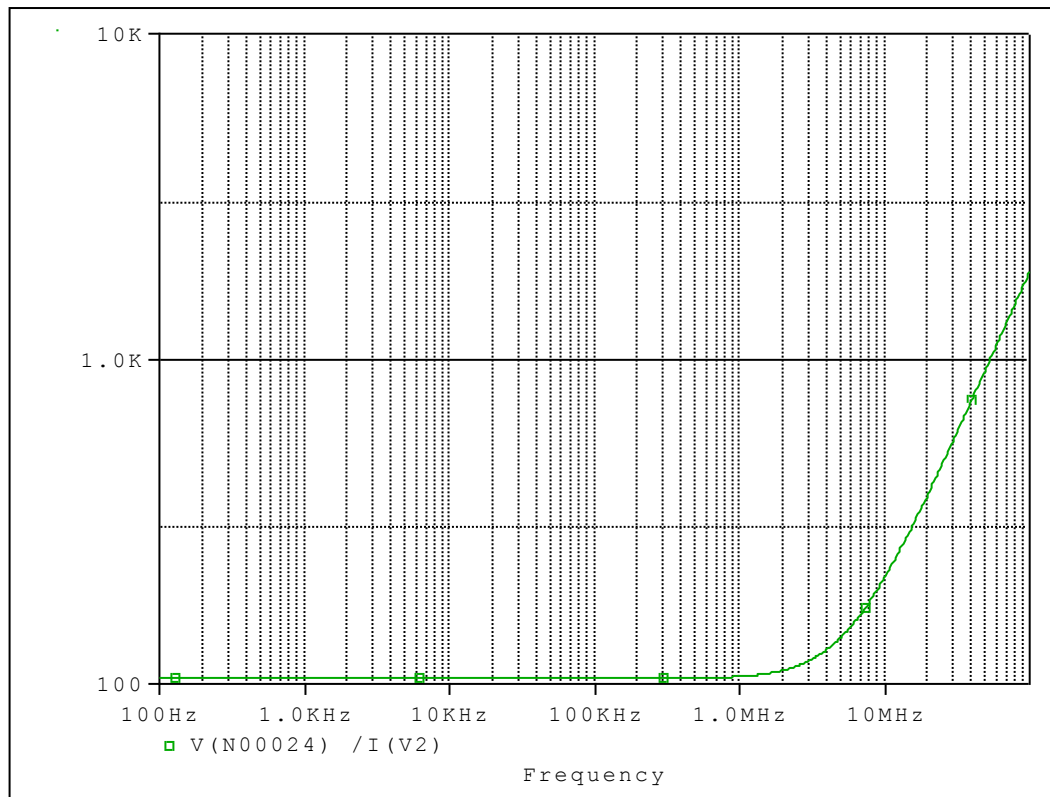
Measurement		
R1		
L1		
C1		

Equivalent circuit

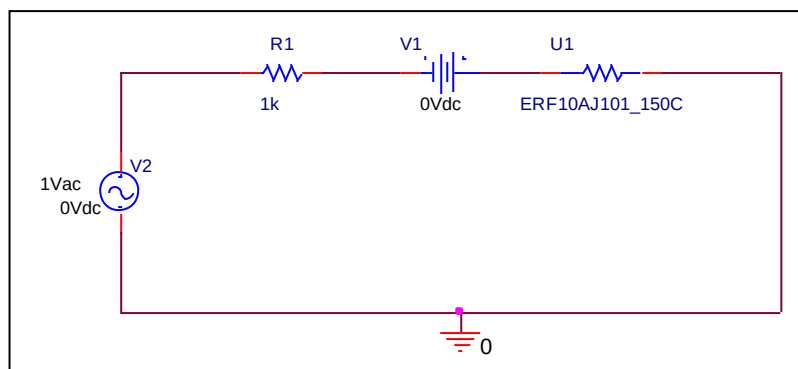


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	102.907	103.808	0.876
1K	102.938	103.739	0.779
10K	102.968	103.738	0.748
100K	102.929	103.755	0.802
1M	104.948	105.381	0.412
10M	215.181	213.315	0.867