

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ101
THERMAL:TA=120 (degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

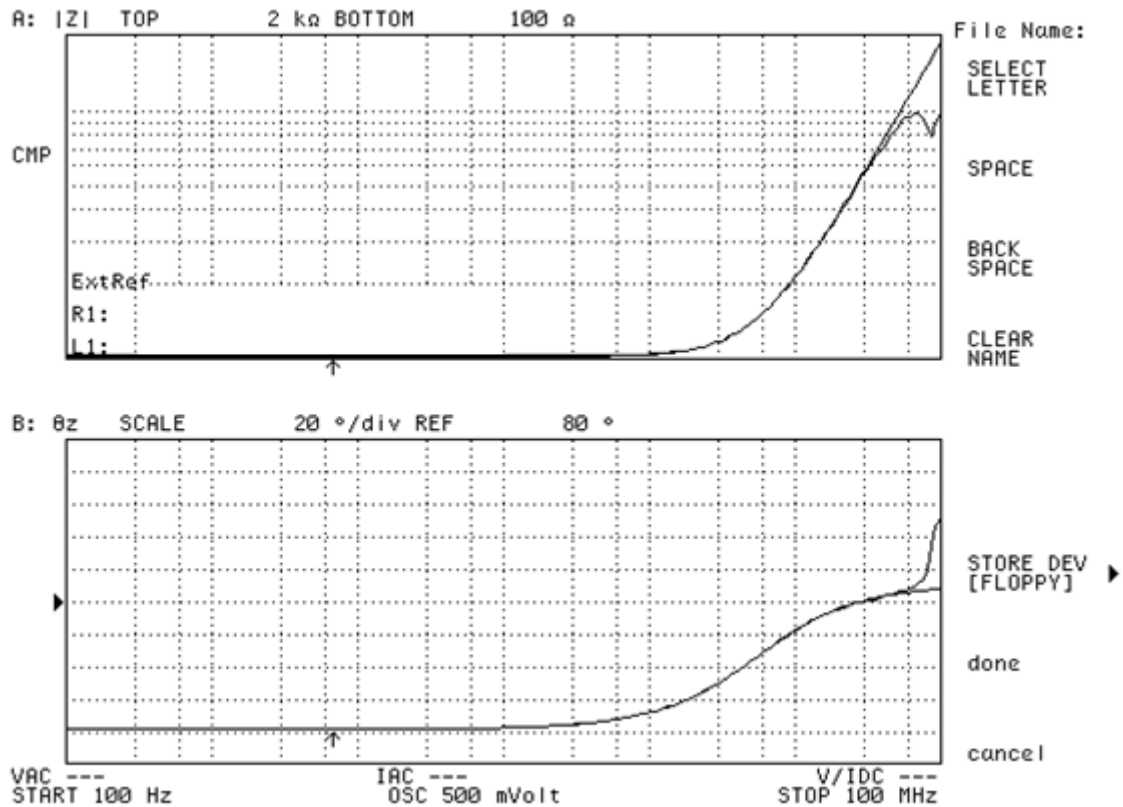
Optimization of Simulation

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

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

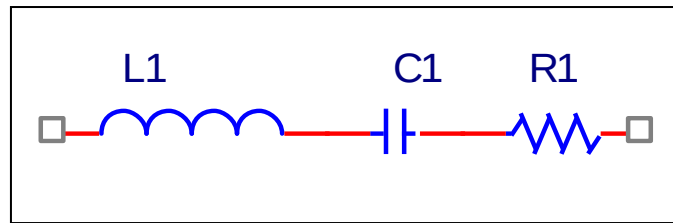
Attention

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



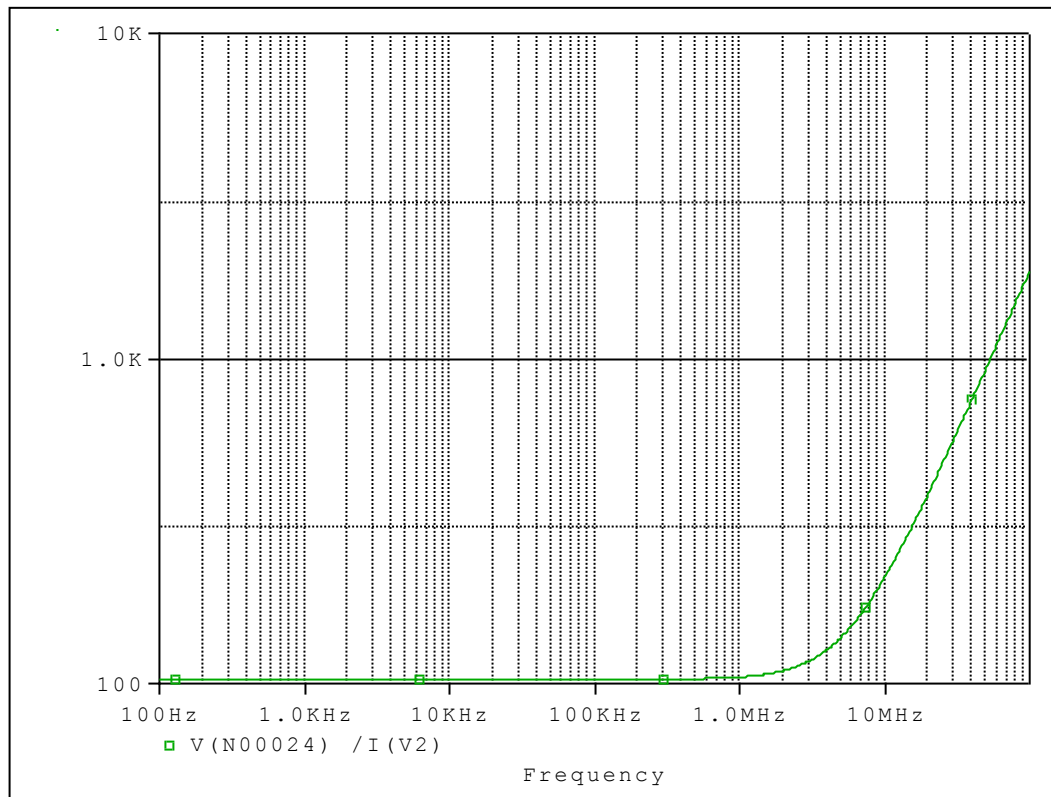
Measurement		
R1		
L1		
C1		

Equivalent circuit

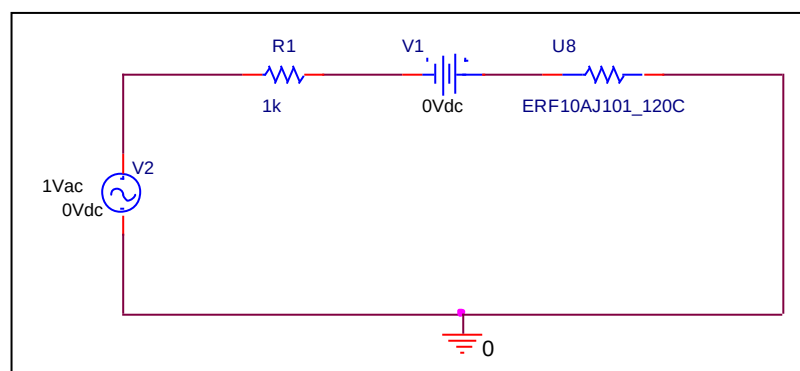


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	102.389	103.082	0.677
1K	102.442	103.080	0.623
10K	102.456	103.080	0.609
100K	102.443	103.097	0.638
1M	104.498	104.730	0.222
10M	214.845	211.939	1.352