

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ101
THERMAL: TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

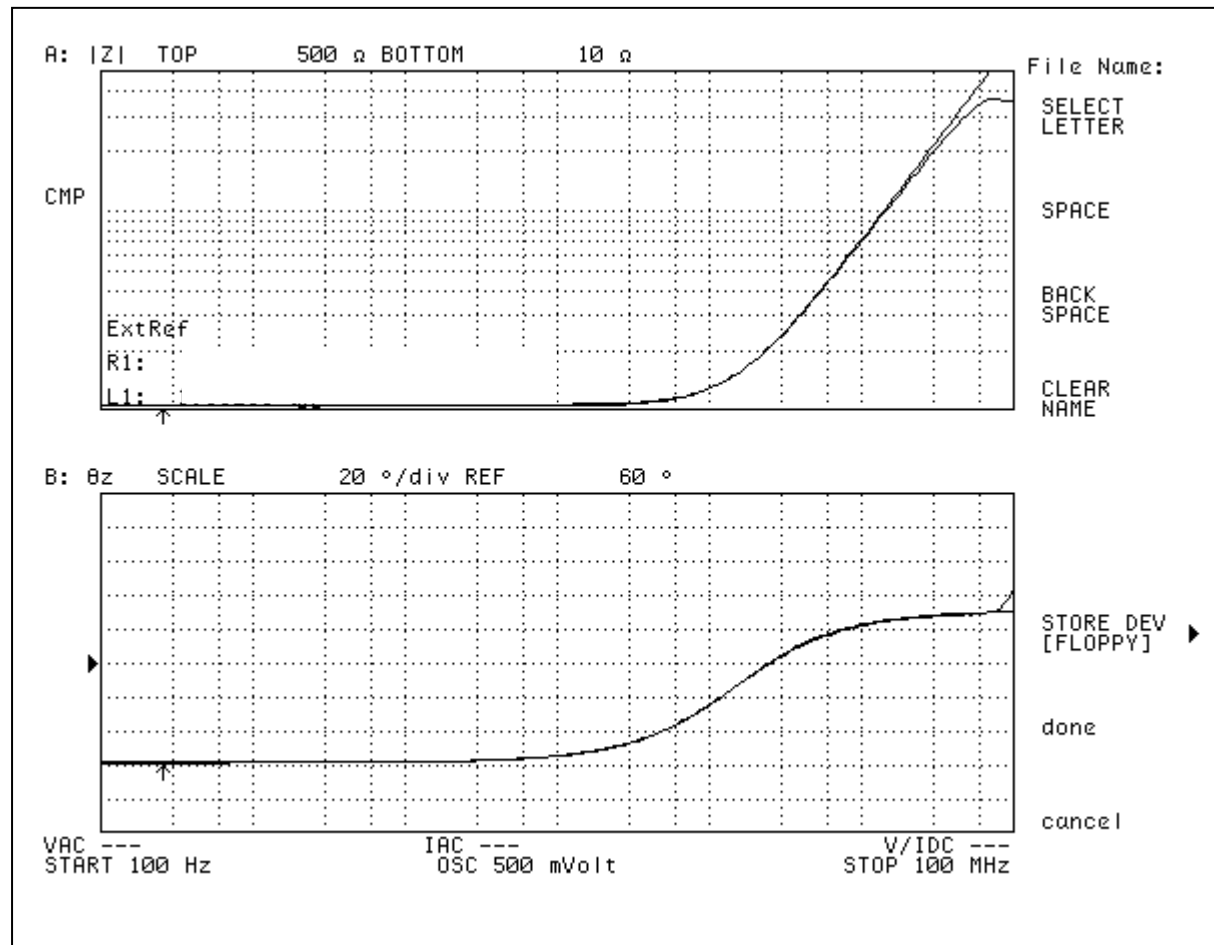
Optimization of Simulation

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

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

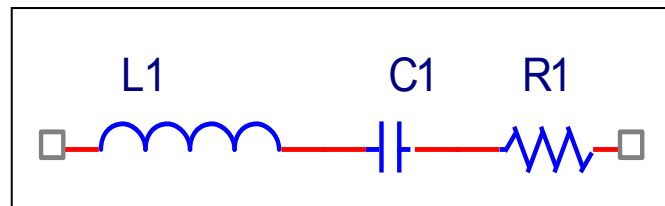
Attention

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



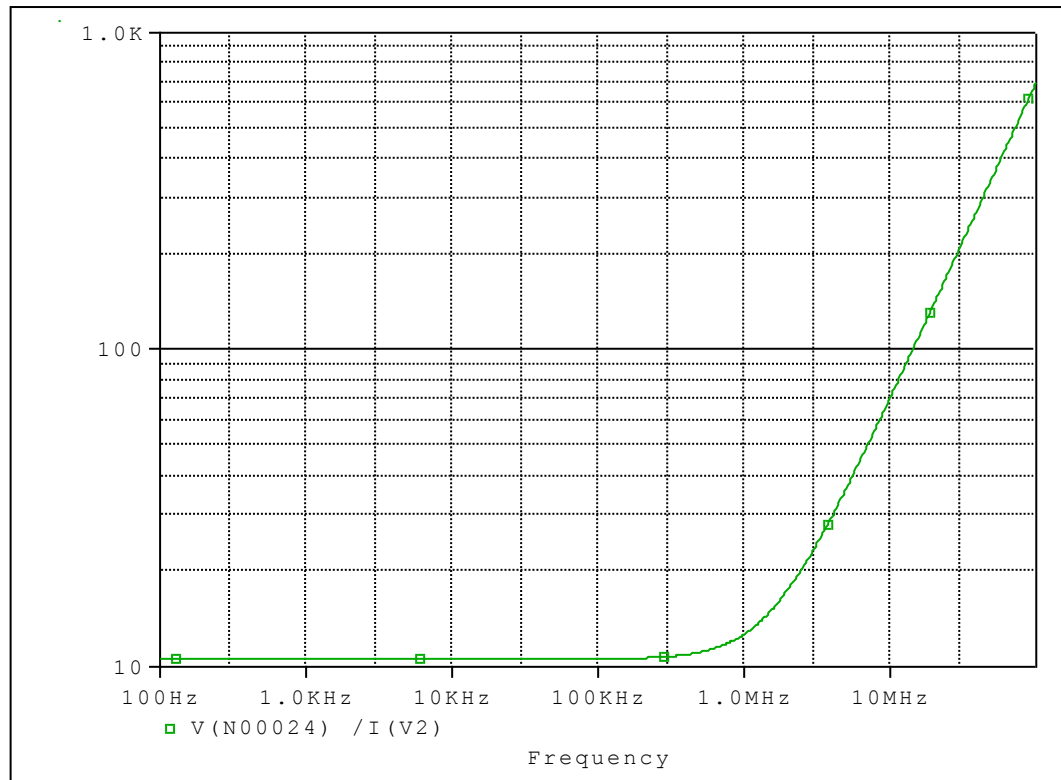
Measurement		
R1		
L1		
C1		

Equivalent circuit

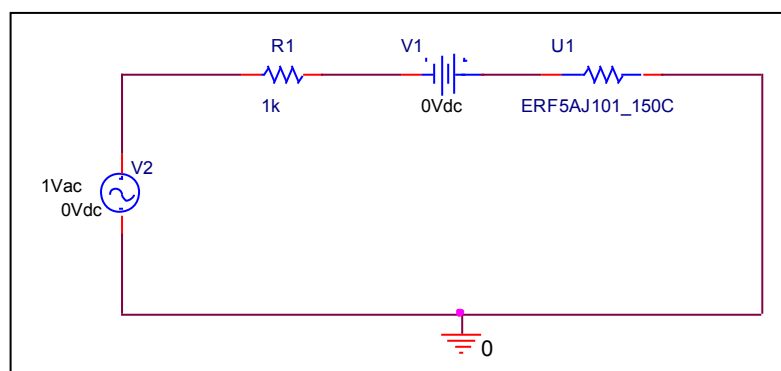


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	10.374	10.568	1.868
1K	10.375	10.567	1.848
10K	10.383	10.567	1.770
100K	10.409	10.590	1.743
1M	12.856	12.670	1.449
10M	70.446	70.840	0.559