

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ220
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

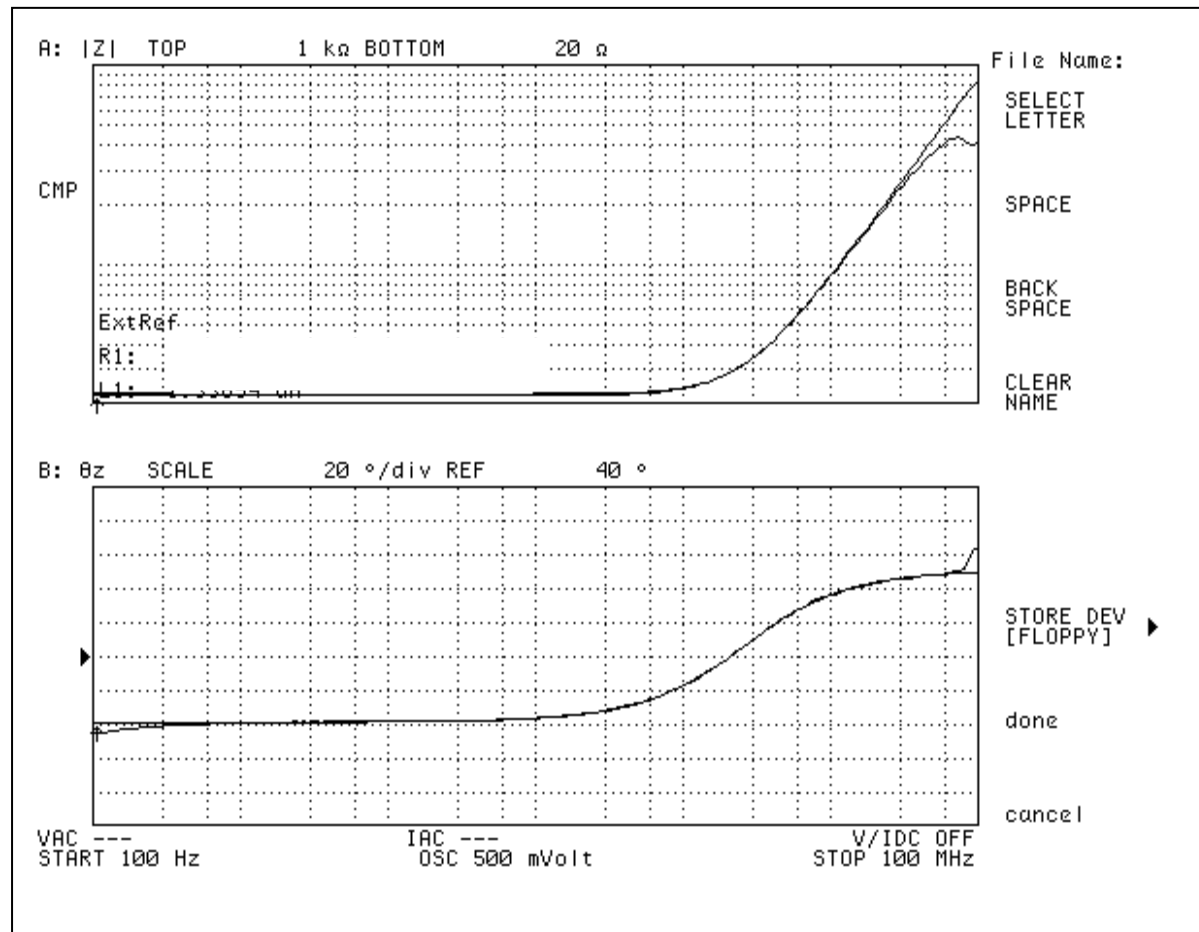
Optimization of Simulation

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

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

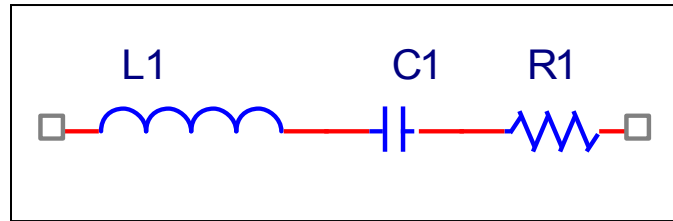
Attention

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



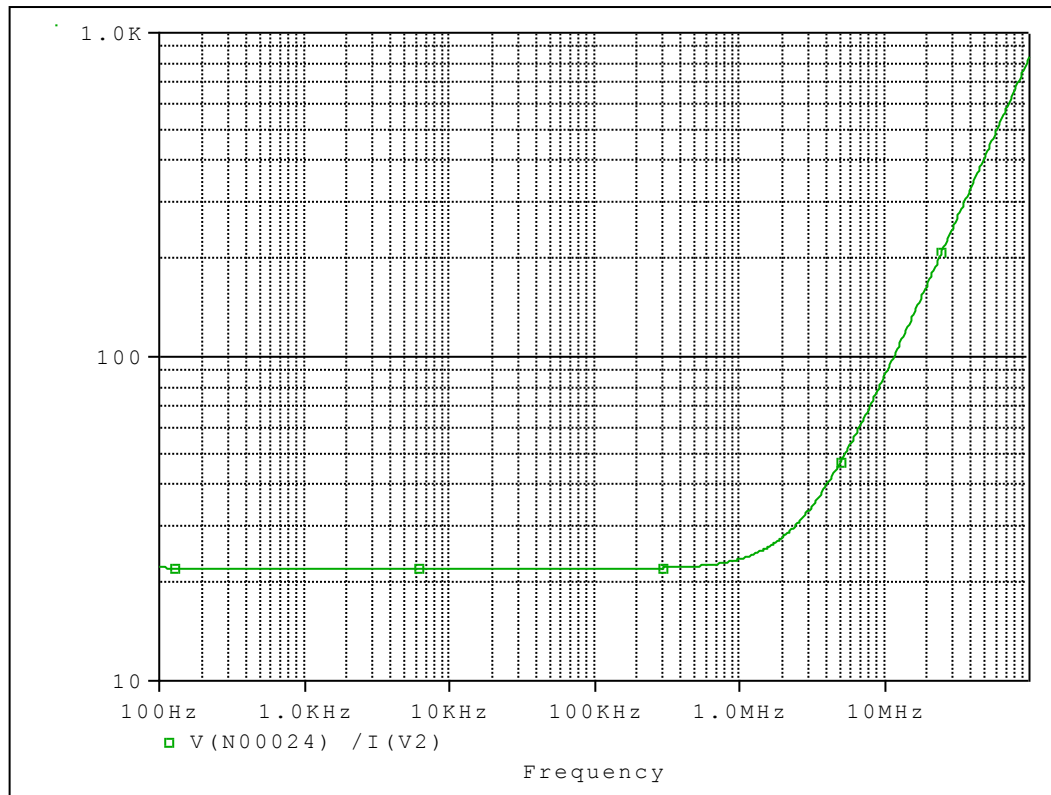
Measurement		
R1		
L1		
C1		

Equivalent circuit

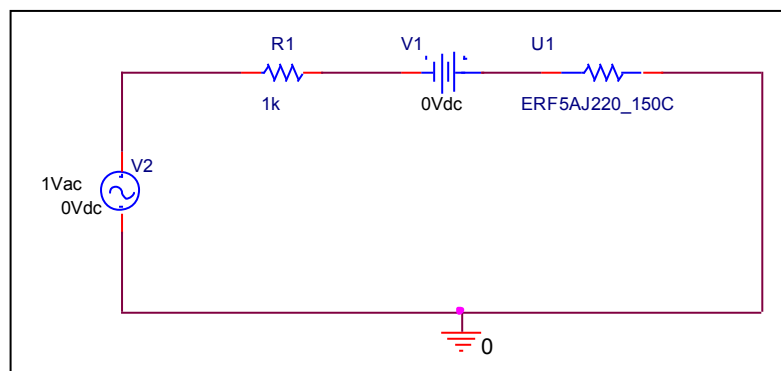


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	21.829	22.183	1.623
1K	21.818	22.182	1.666
10K	21.860	22.197	1.542
100K	23.765	23.718	0.199
1M	87.453	86.857	0.681
10M	21.829	22.183	1.623