

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ681
THERMAL: TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

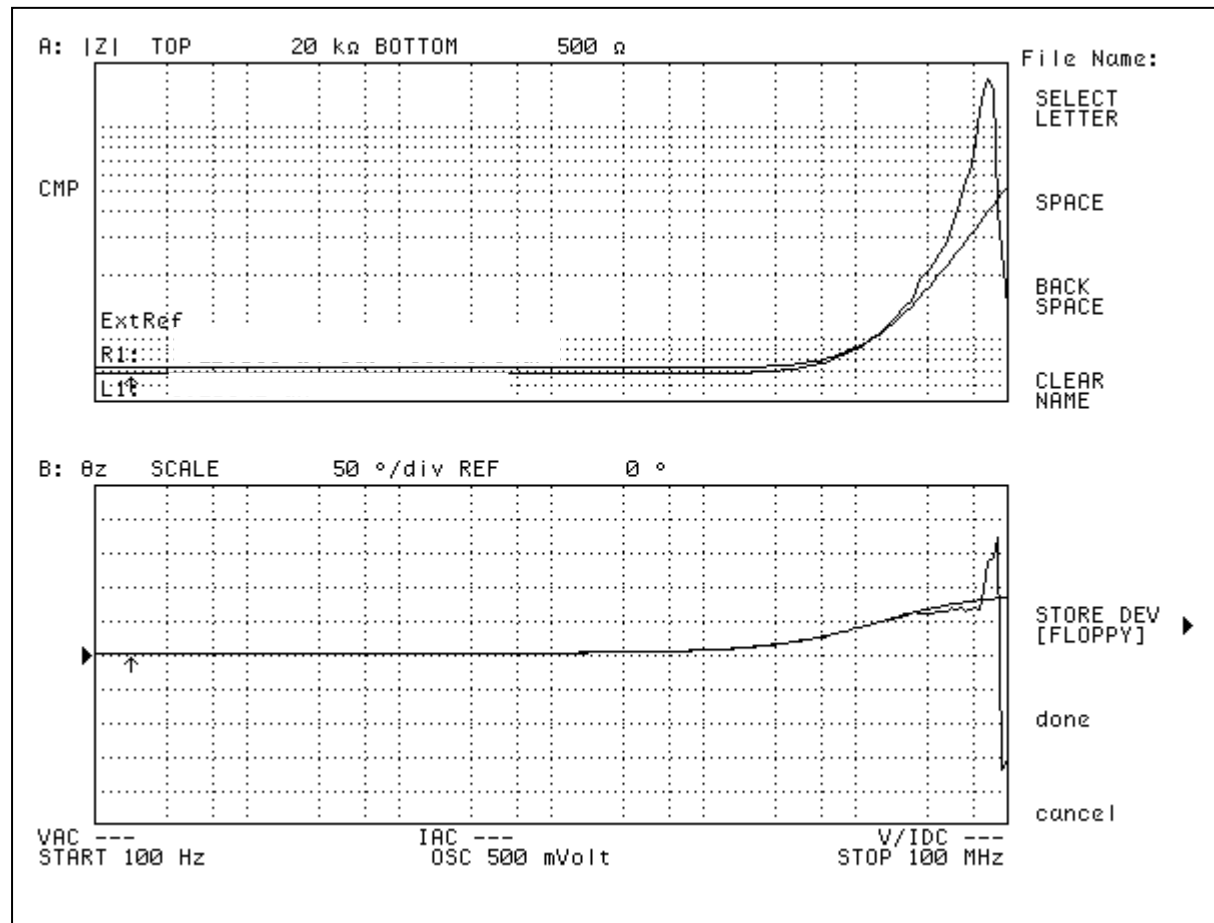
Optimization of Simulation

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

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

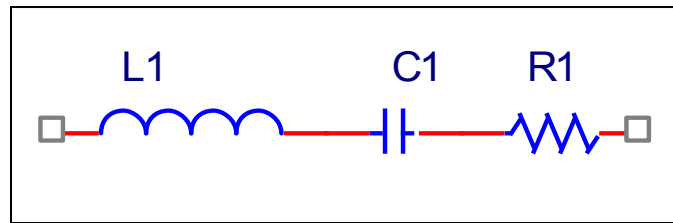
Attention

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



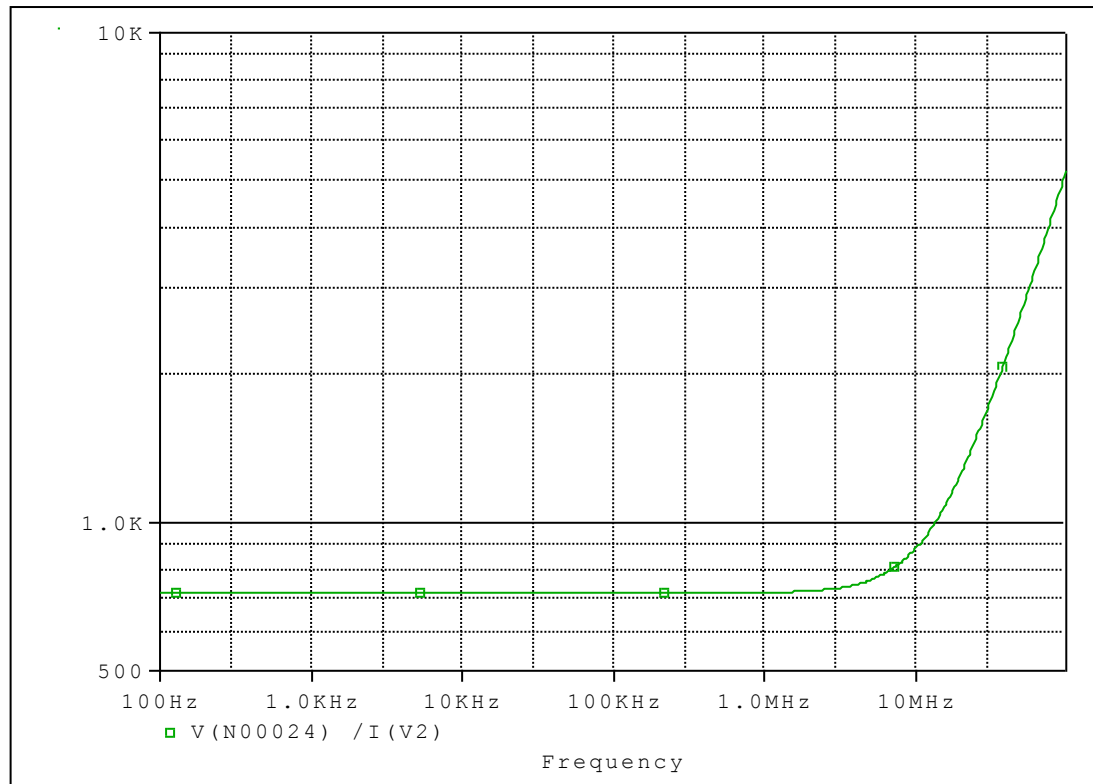
Measurement		
R1		
L1		
C1		

Equivalent circuit

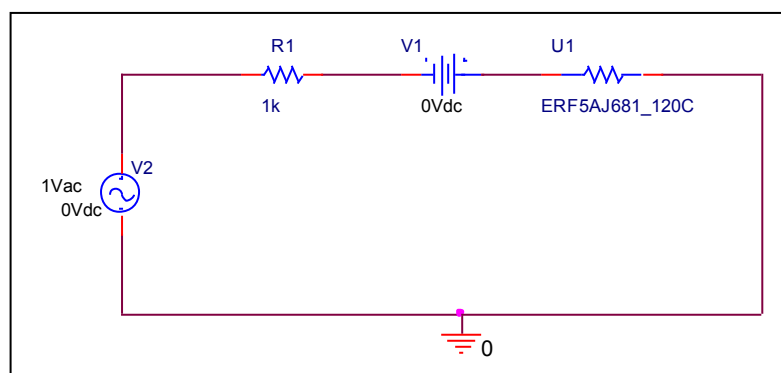


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	671.972	720.254	7.185
1K	671.951	720.033	7.156
10K	672.259	720.031	7.106
100K	672.048	720.049	7.142
1M	676.404	721.876	6.723
10M	882.482	885.724	0.367