

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ681
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

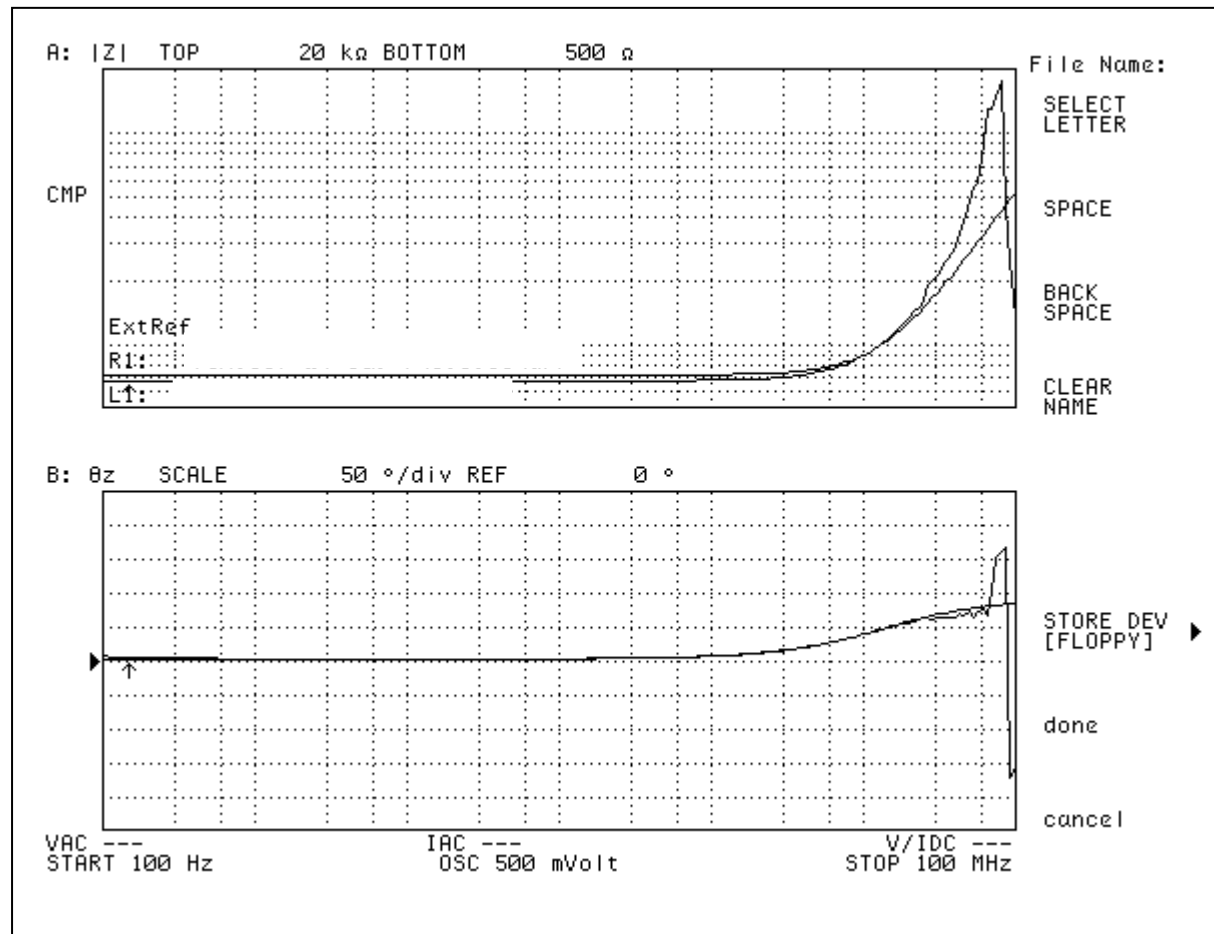
Optimization of Simulation

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

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

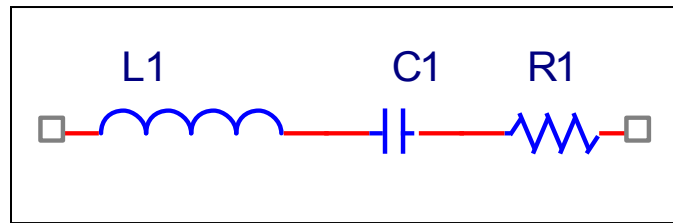
Attention

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



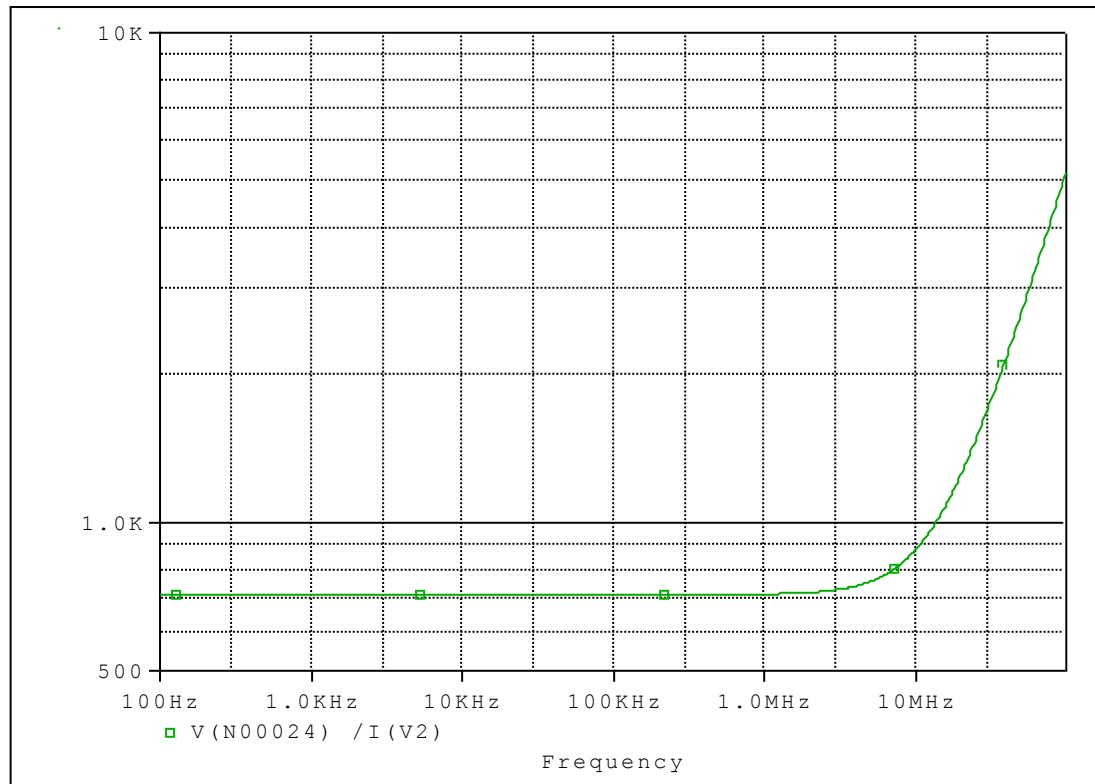
Measurement		
R1		
L1		
C1		

Equivalent circuit

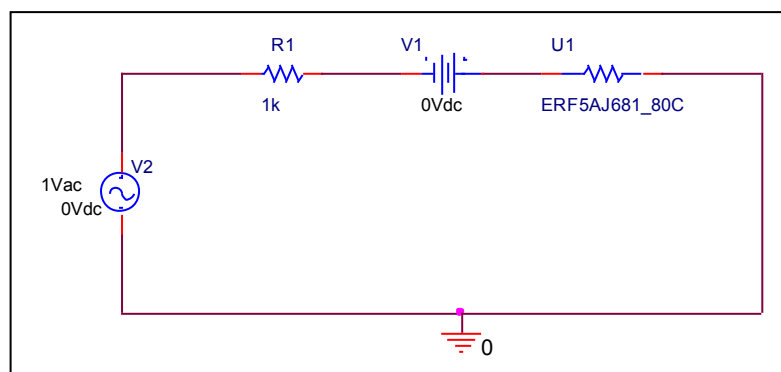


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	669.512	715.689	6.897
1K	669.616	714.895	6.762
10K	669.277	714.887	6.815
100K	669.525	714.905	6.778
1M	673.808	716.731	6.370
10M	878.272	880.384	0.240