

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ680
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

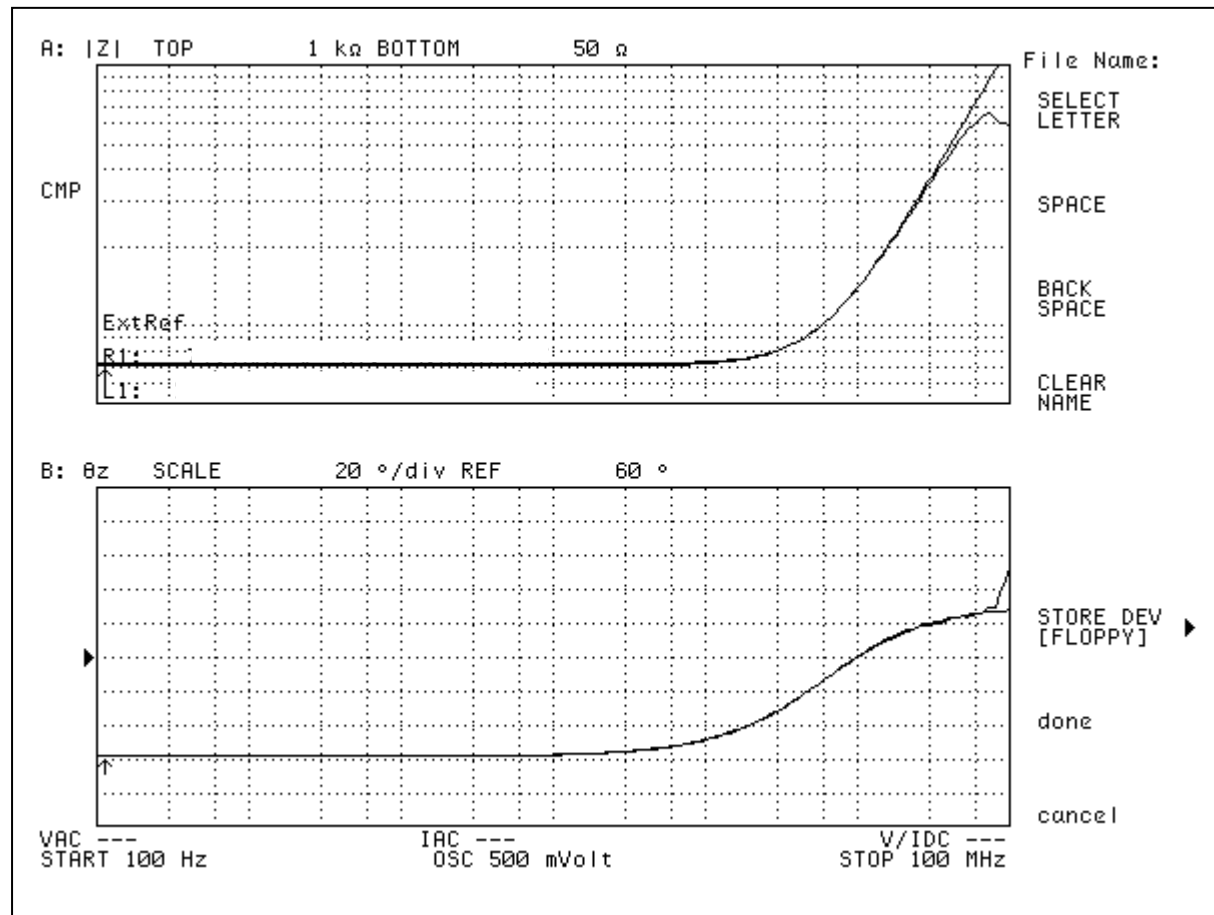
Optimization of Simulation

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

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

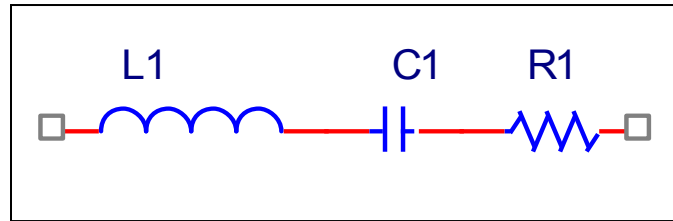
Attention

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



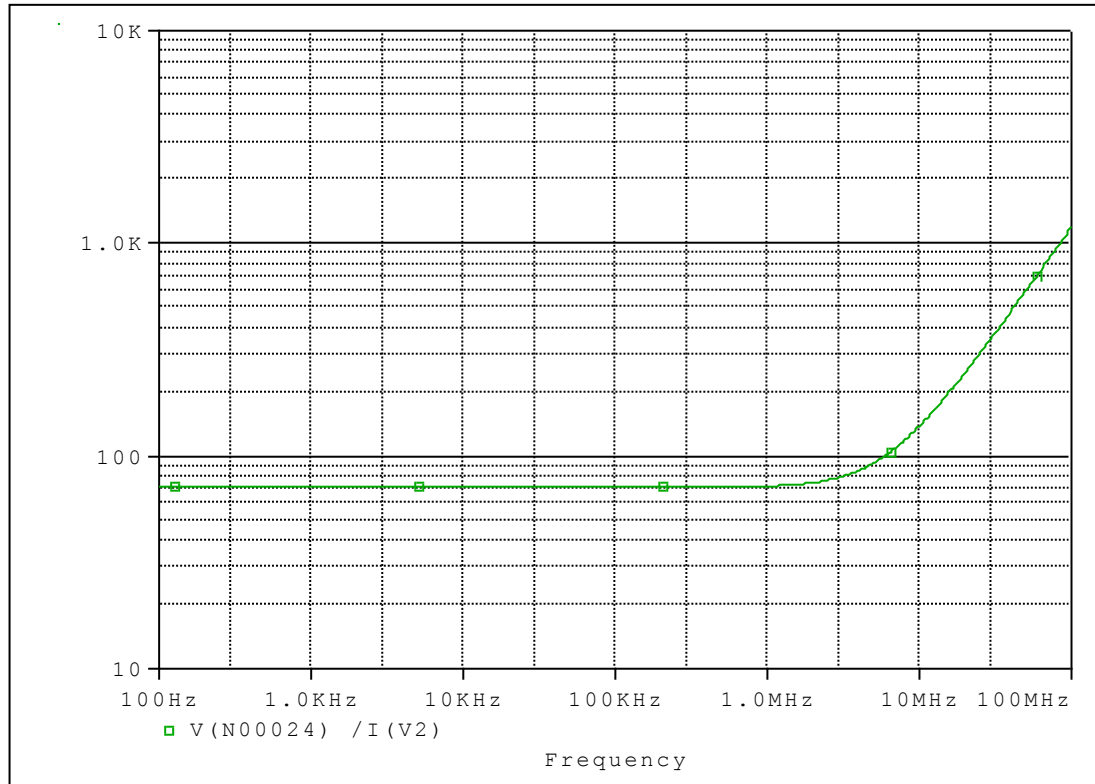
Measurement		
R1		
L1		
C1		

Equivalent circuit

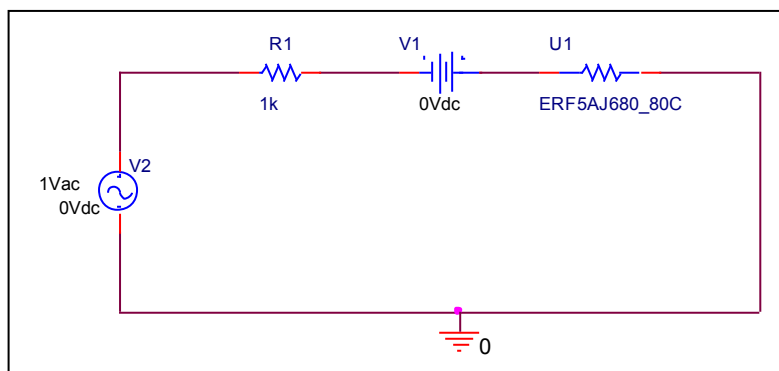


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	69.796	71.152	1.943
1K	69.850	71.151	1.862
10K	69.839	71.151	1.879
100K	69.854	71.161	1.872
1M	71.422	72.133	0.995
10M	140.250	138.324	1.373