

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ680
THERMAL: TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

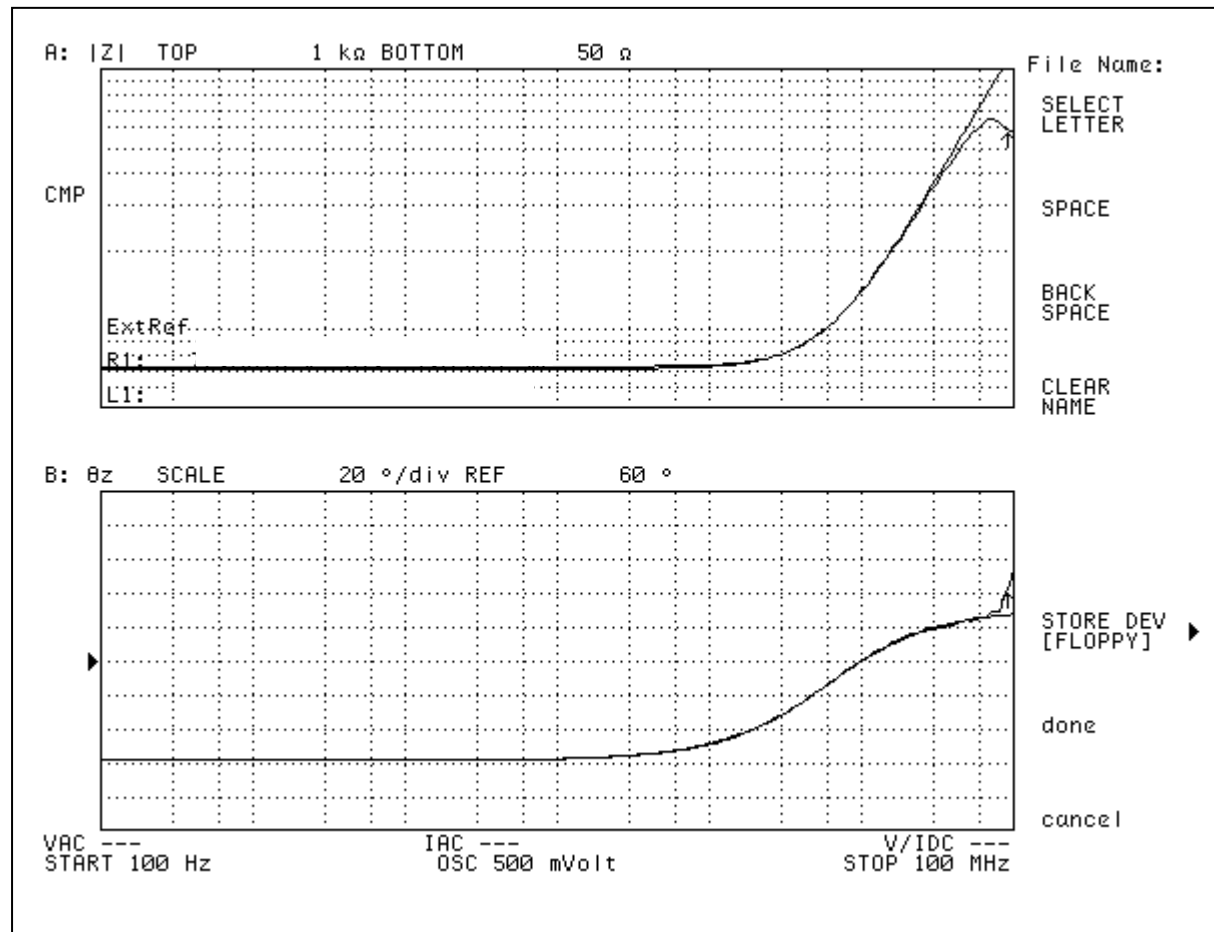
Optimization of Simulation

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

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

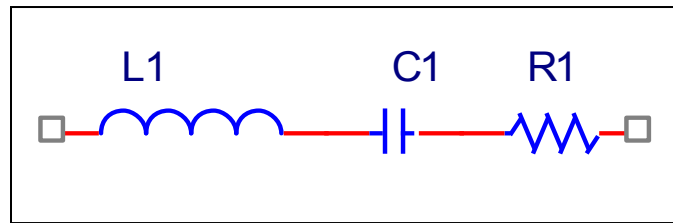
Attention

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



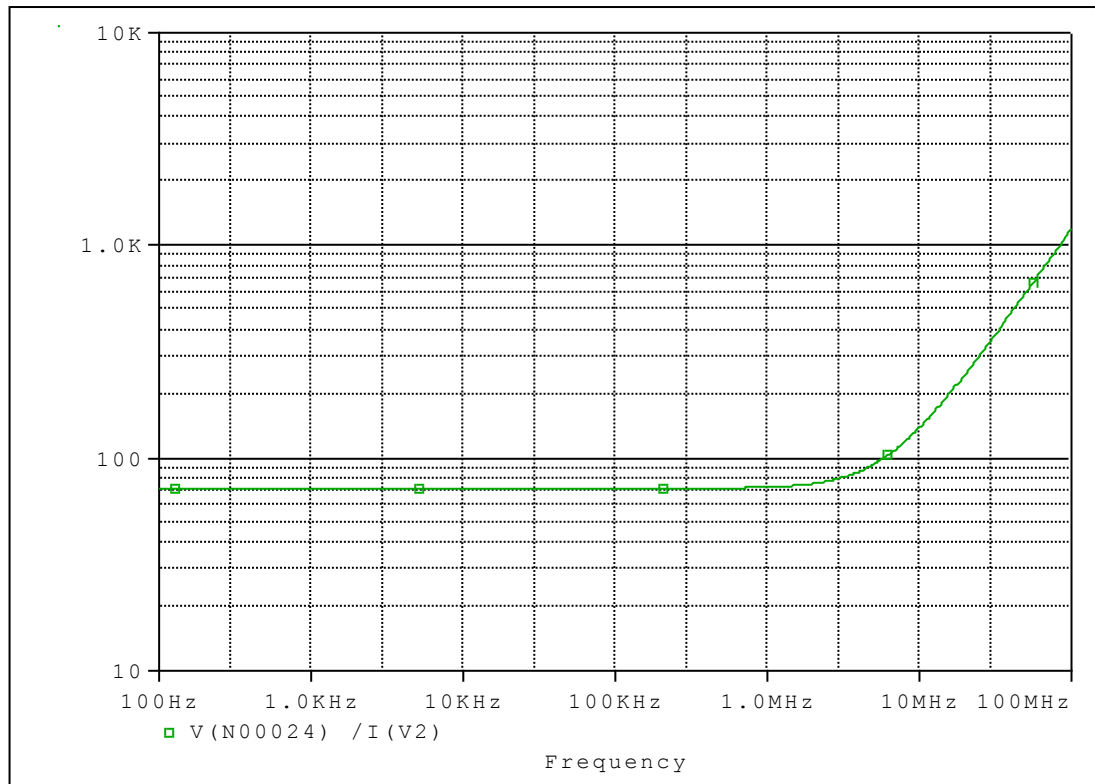
Measurement		
R1		
L1		
C1		

Equivalent circuit

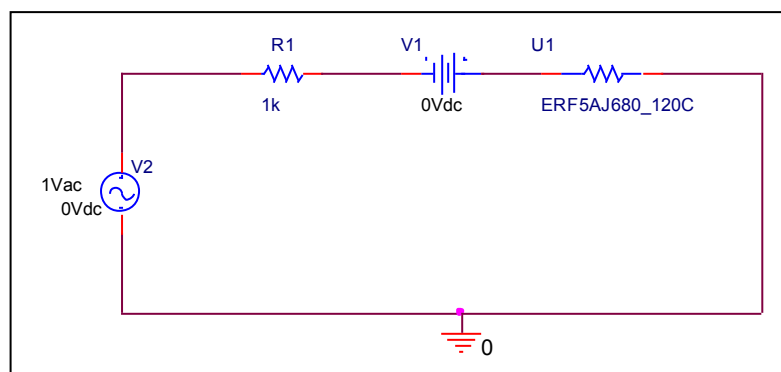


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	70.318	72.048	2.460
1K	70.348	72.032	2.394
10K	70.326	72.032	2.426
100K	70.362	72.041	2.386
1M	71.890	73.008	1.556
10M	140.670	139.097	1.118