

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ471
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

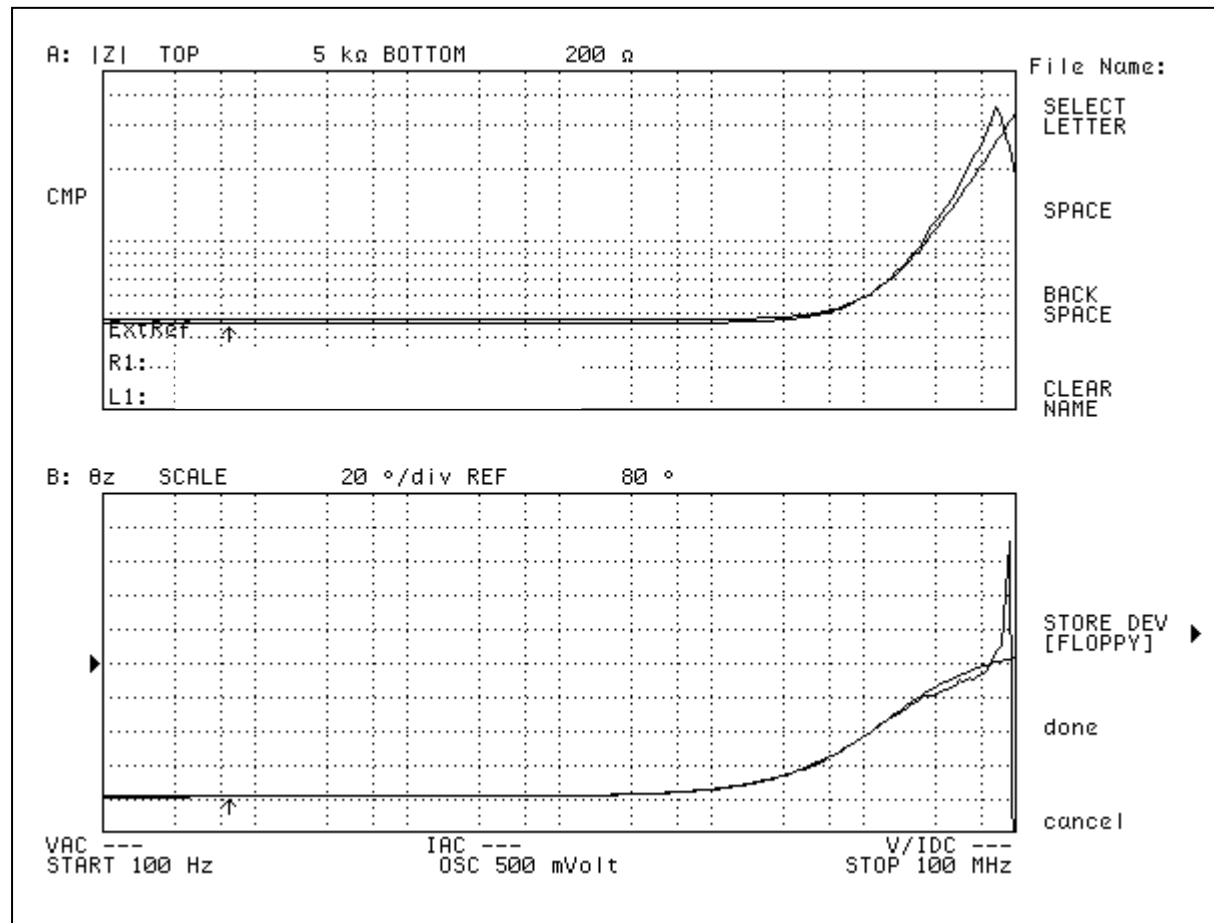
Optimization of Simulation

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

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

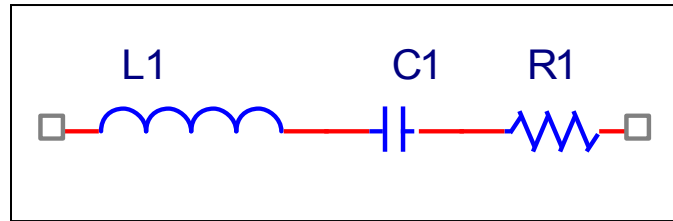
Attention

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



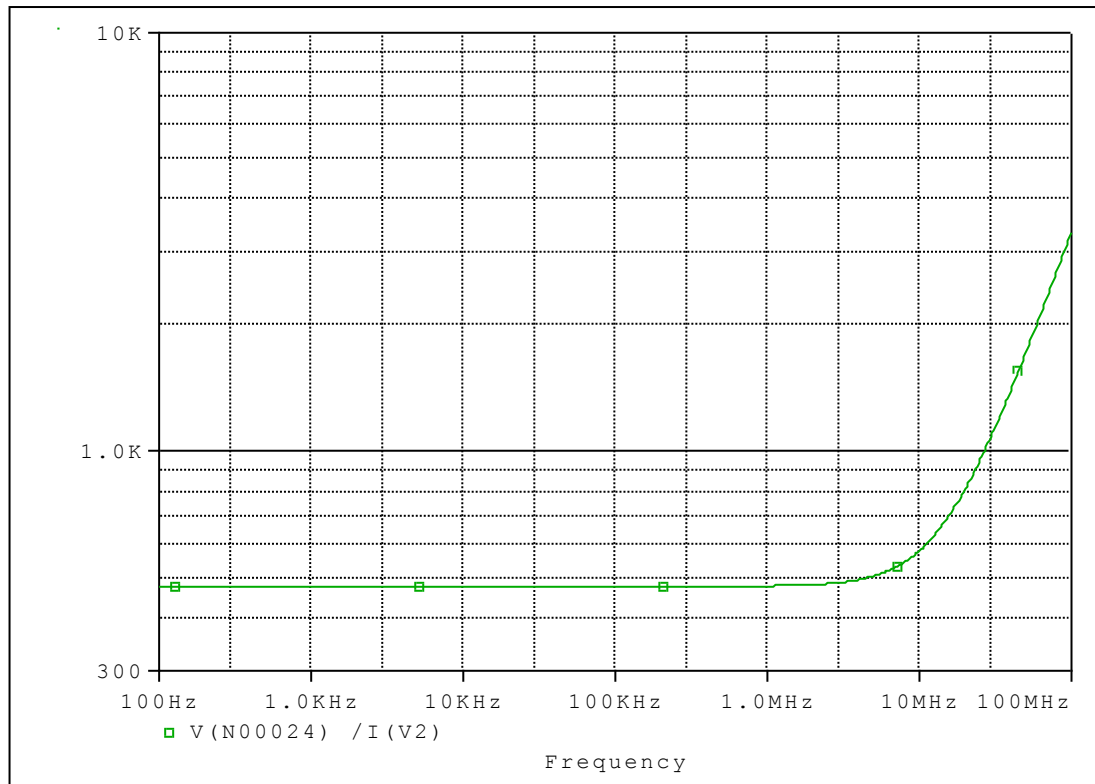
Measurement		
R1		
L1		
C1		

Equivalent circuit

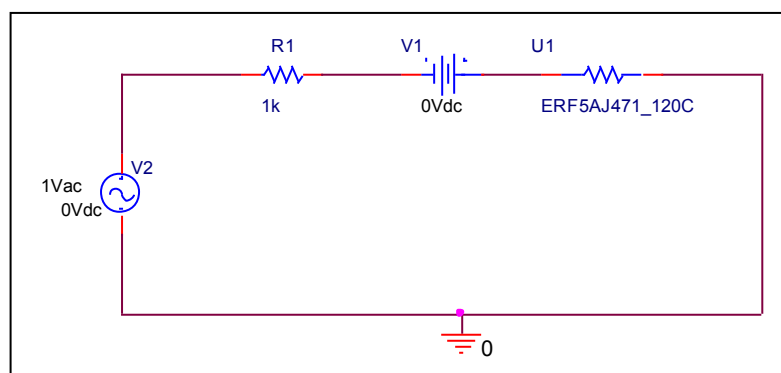


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	454.164	477.622	5.165
1K	454.164	477.622	5.165
10K	454.164	477.622	5.165
100K	454.164	477.622	5.165
1M	454.164	477.622	5.165
10M	454.164	477.622	5.165