

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ331
THERMAL: TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

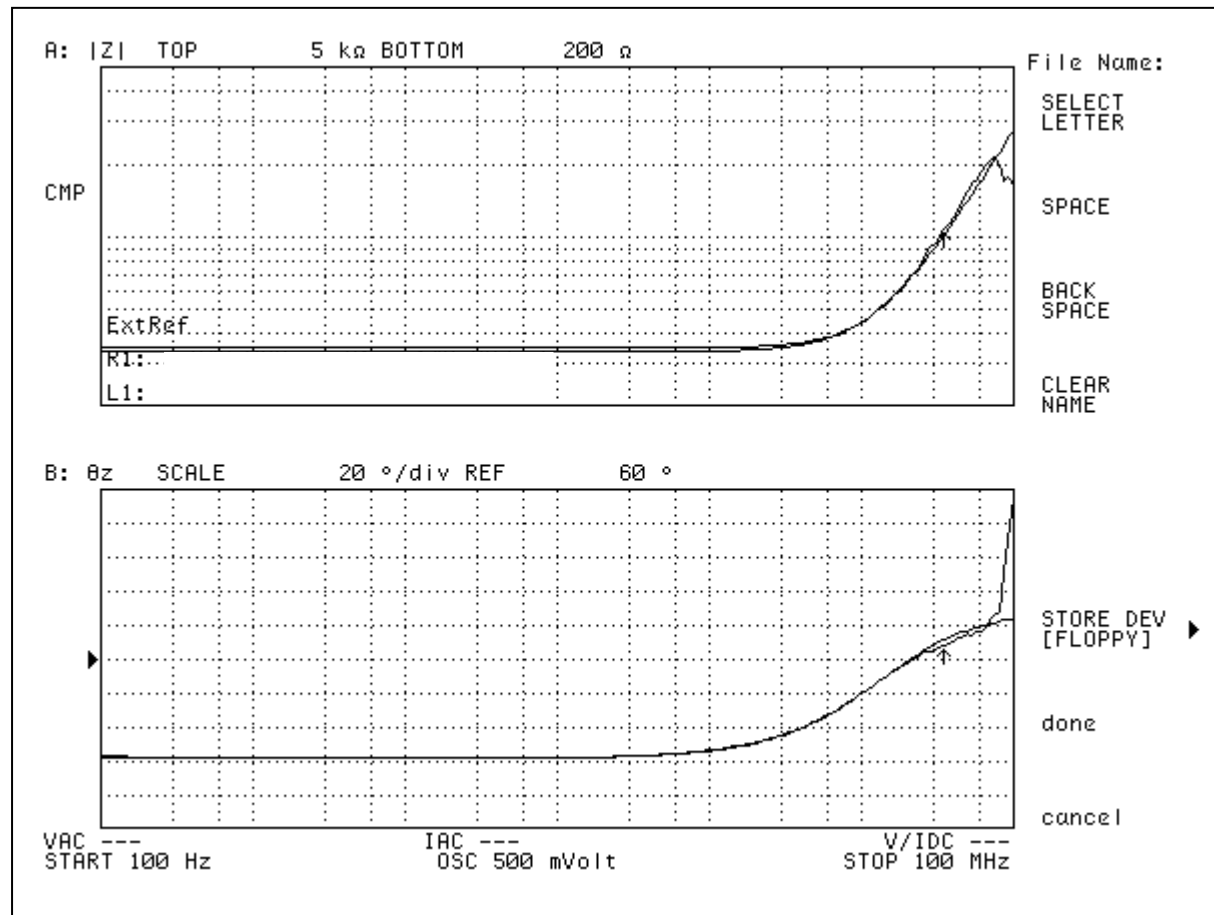
Optimization of Simulation

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

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

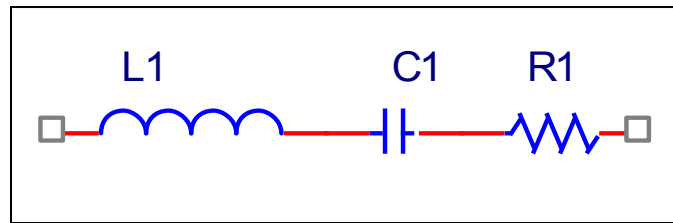
Attention

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



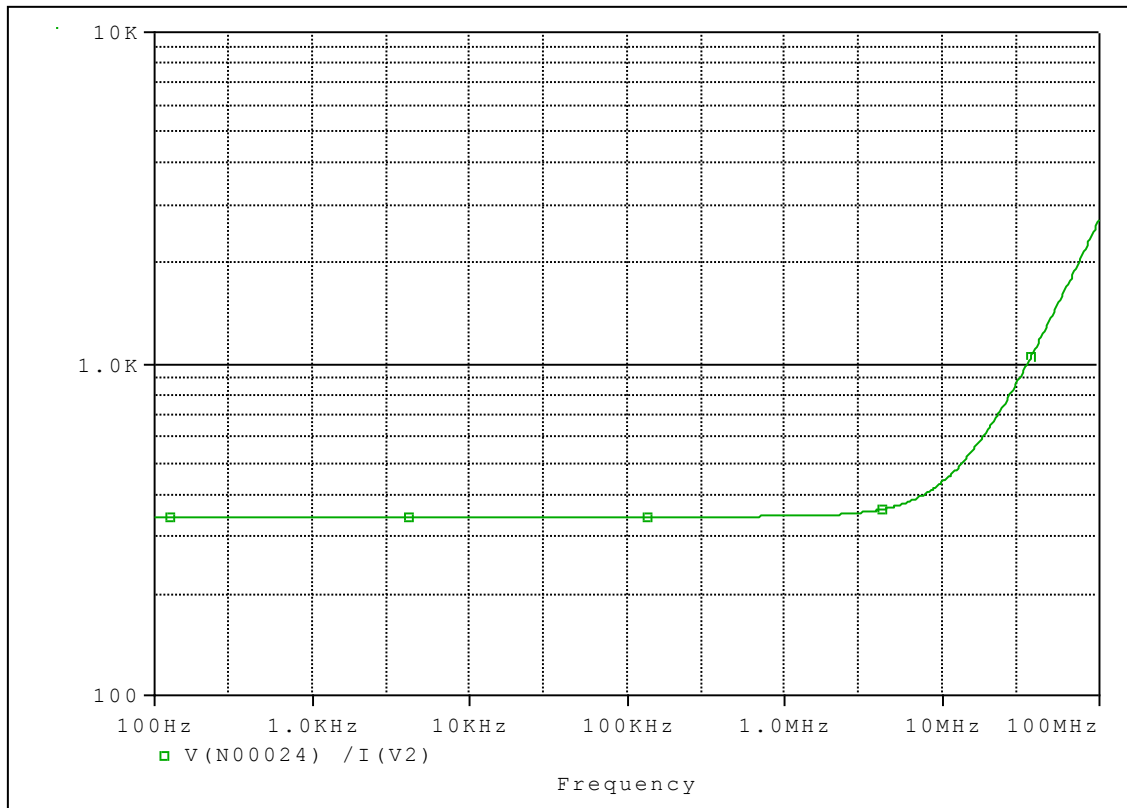
Measurement		
R1		
L1		
C1		

Equivalent circuit

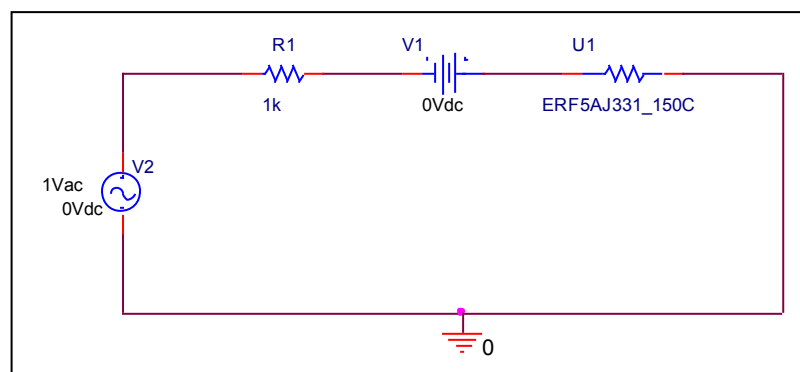


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	333.292	346.254	3.889
1K	333.317	346.091	3.832
10K	333.306	346.089	3.835
100K	333.335	346.100	3.829
1M	335.409	347.141	3.498
10M	441.170	438.988	0.495