

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ331
THERMAL: TA=150 (degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

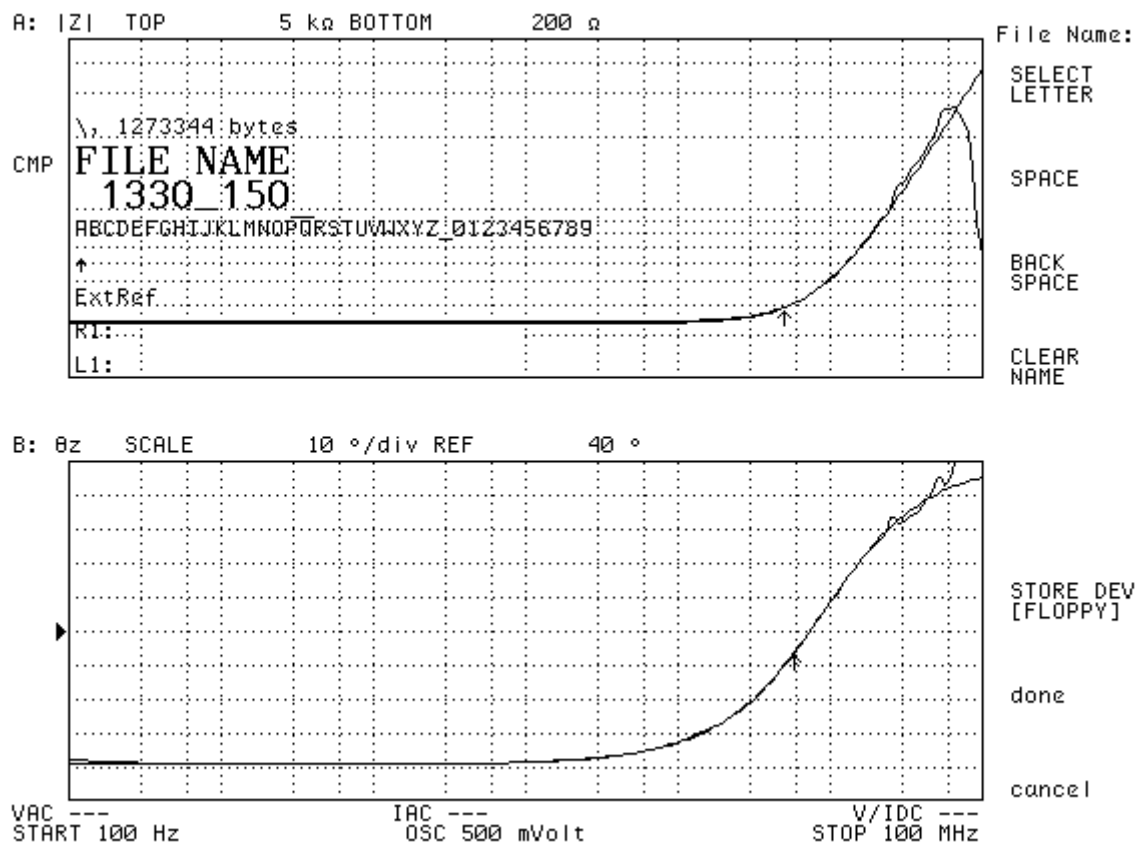
Optimization of Simulation

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

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

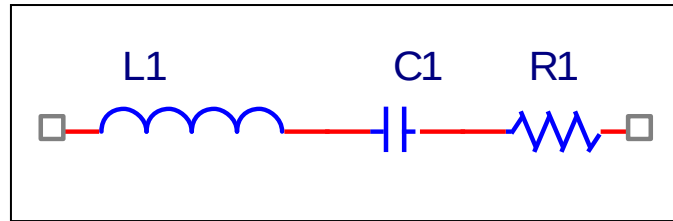
Attention

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



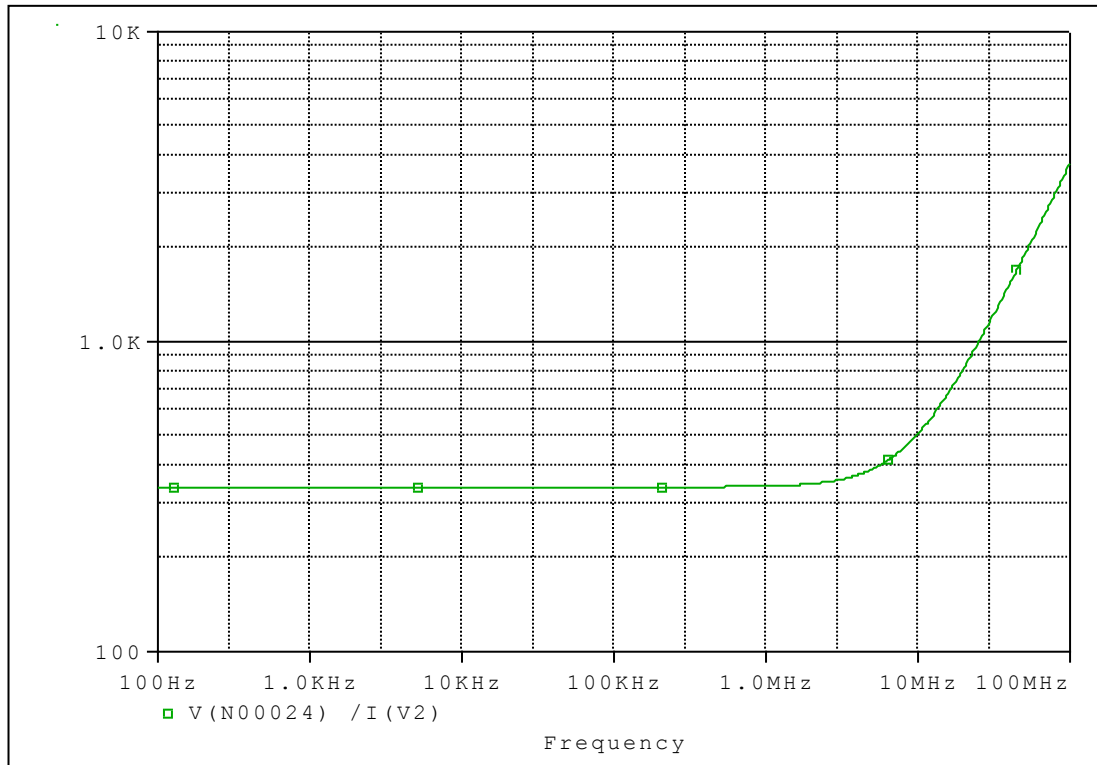
Measurement		
R1		
L1		
C1		

Equivalent circuit

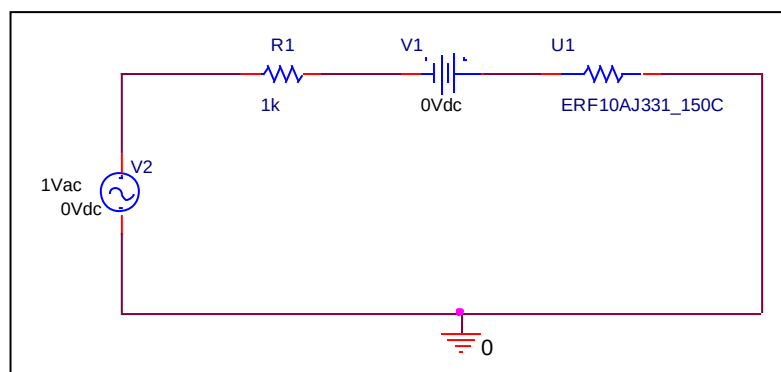


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	333.808	340.109	1.888
1K	333.872	339.996	1.834
10K	333.725	339.995	1.879
100K	333.805	340.016	1.861
1M	336.417	342.048	1.674
10M	513.539	505.594	1.547