

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AKR33
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

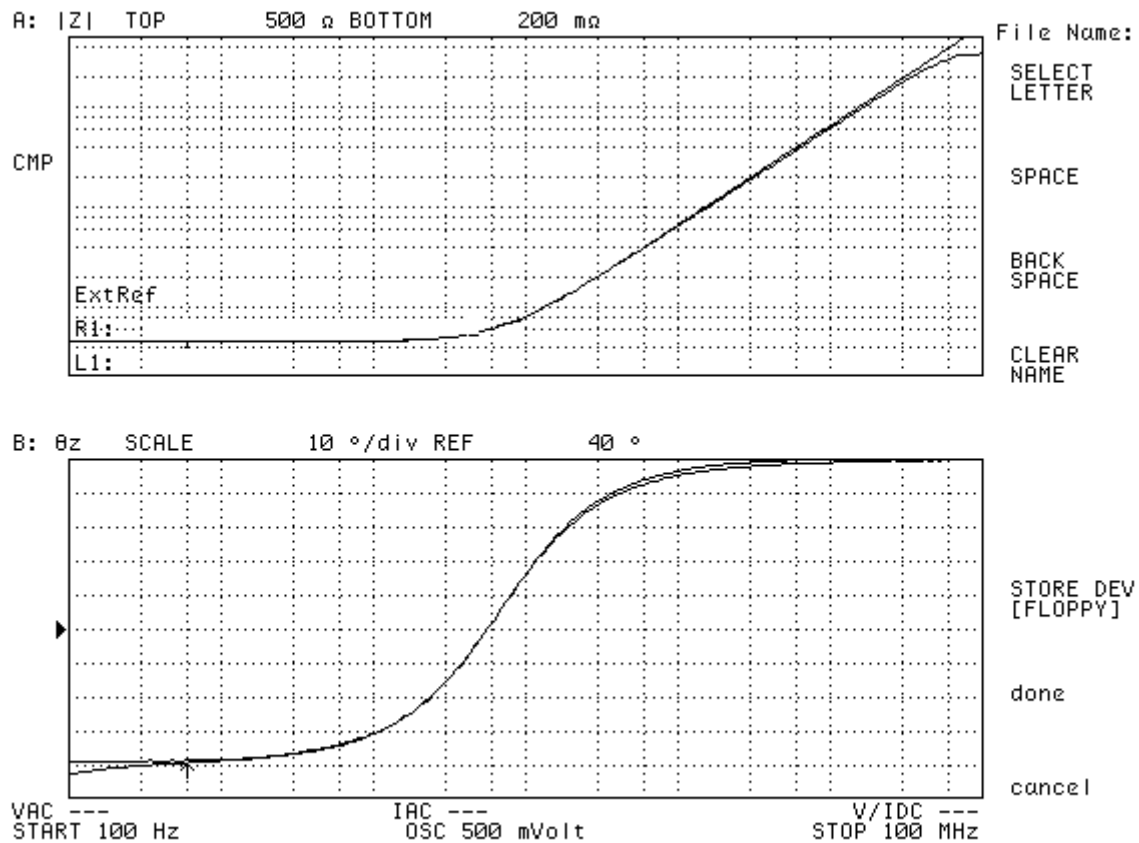
Optimization of Simulation

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

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

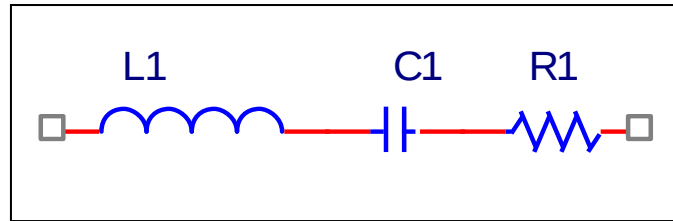
Attention

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



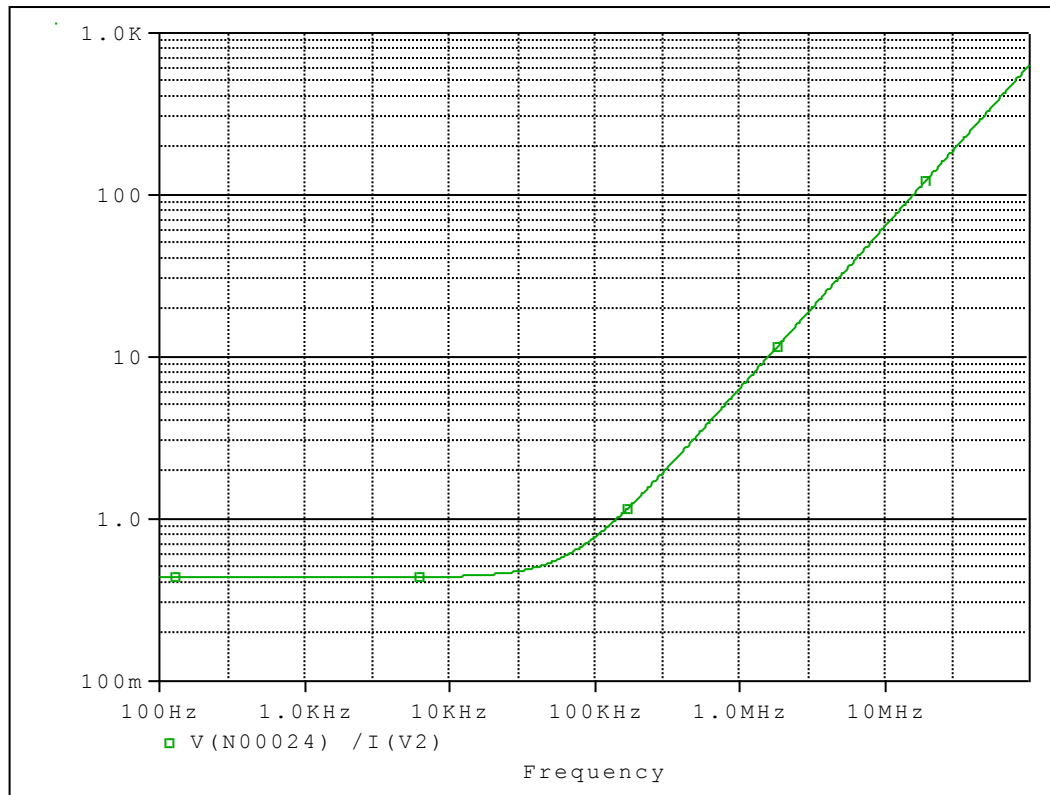
Measurement		
R1		
L1		
C1		

Equivalent circuit

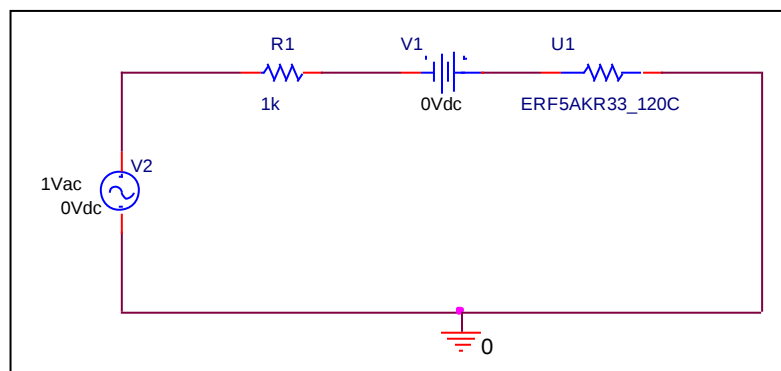


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	433.899	438.943	1.163
1K	437.243	438.107	0.198
10K	440.368	442.656	0.520
100K	774.776	772.919	0.240
1M	6.479	6.383	1.479
10M	60.972	63.682	4.444