

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ100
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

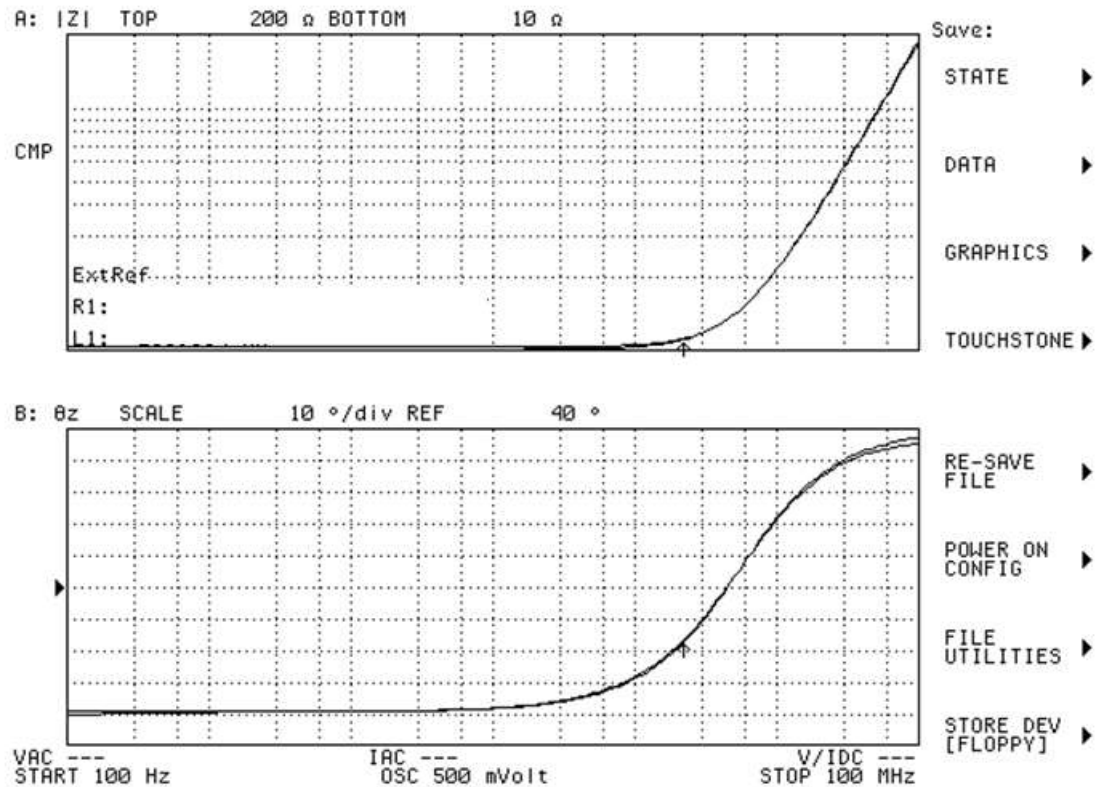
Optimization of Simulation

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

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

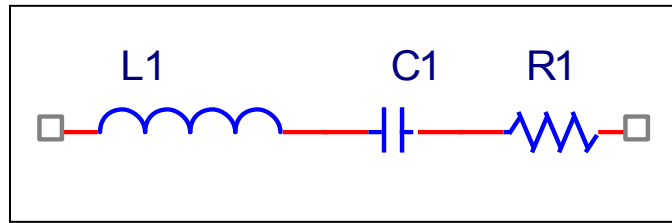
Attention

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



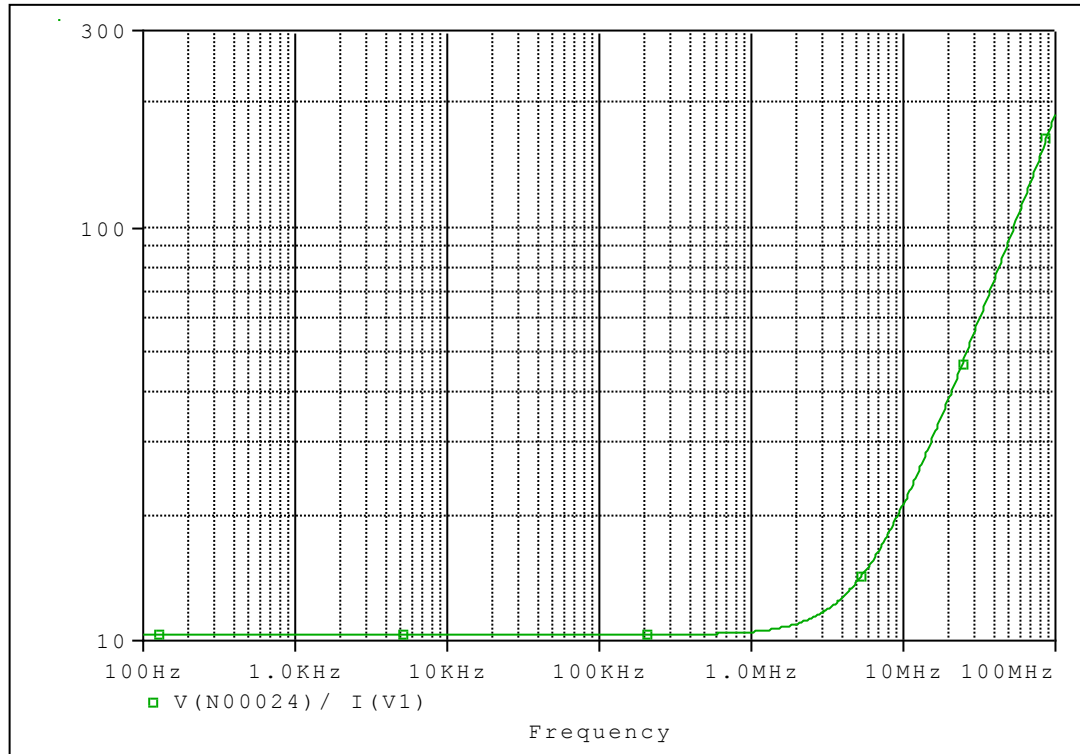
Measurement		
R1		
L1		
C1		

Equivalent circuit

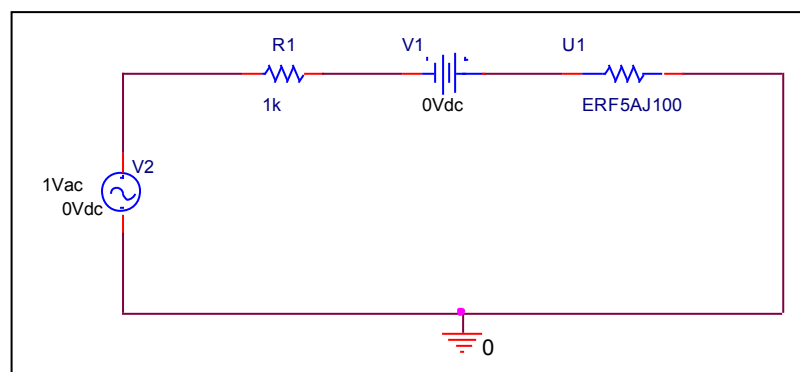


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	10.074	10.340	2.640
1K	10.078	10.338	2.580
10K	10.077	10.338	2.590
100K	10.083	10.340	2.549
1M	10.324	10.506	1.763
10M	21.330	21.397	0.314
100M	183.169	187.627	2.434