

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ301
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

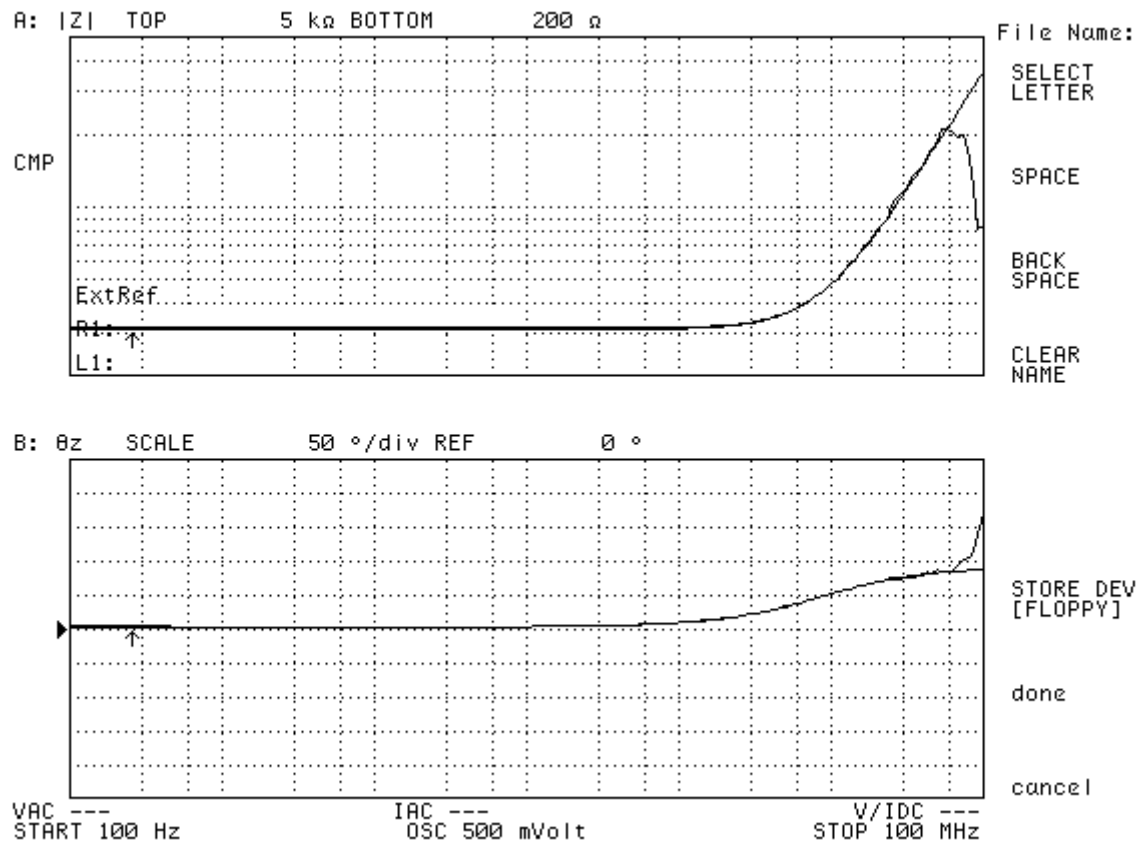
Optimization of Simulation

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)



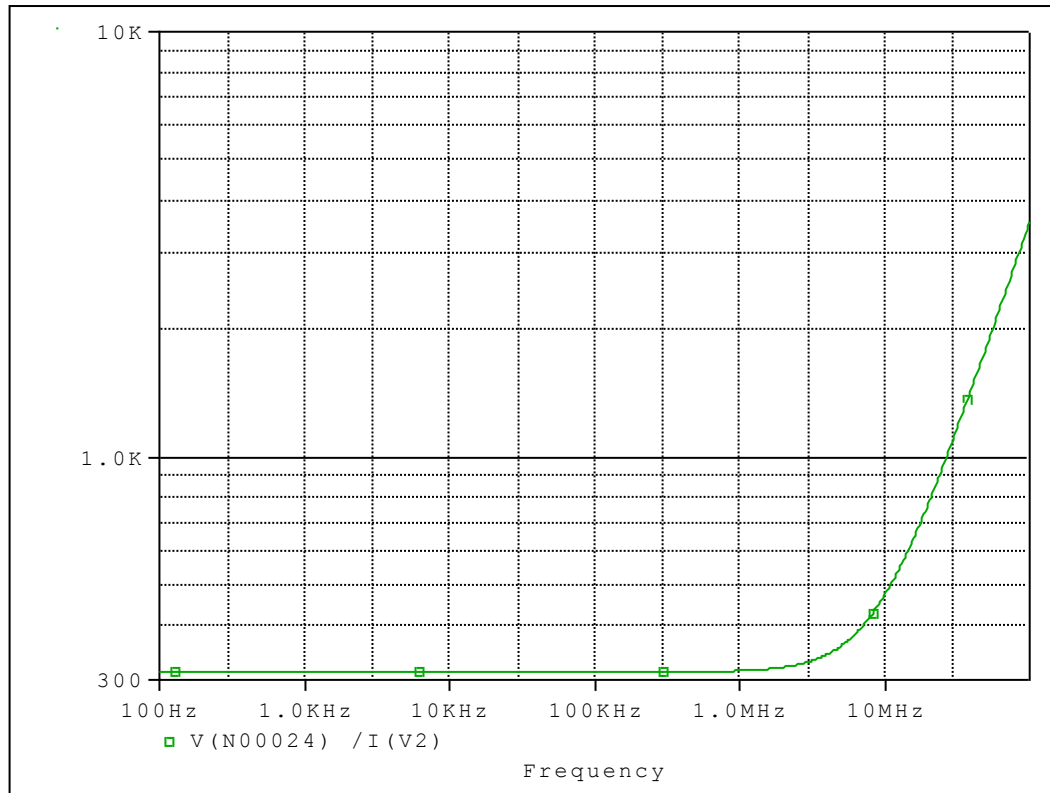
Measurement		
R1		
L1		
C1		

Equivalent circuit

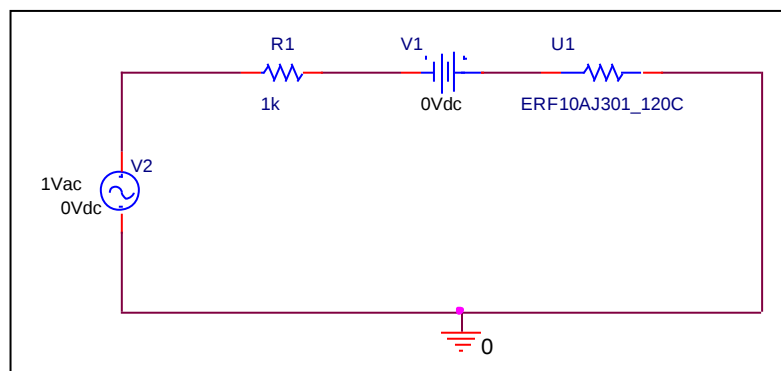


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	310.474	313.839	1.084
1K	310.491	313.264	0.893
10K	310.421	313.258	0.914
100K	310.569	313.278	0.872
1M	313.098	315.274	0.695
10M	482.859	474.189	1.795