

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ391
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

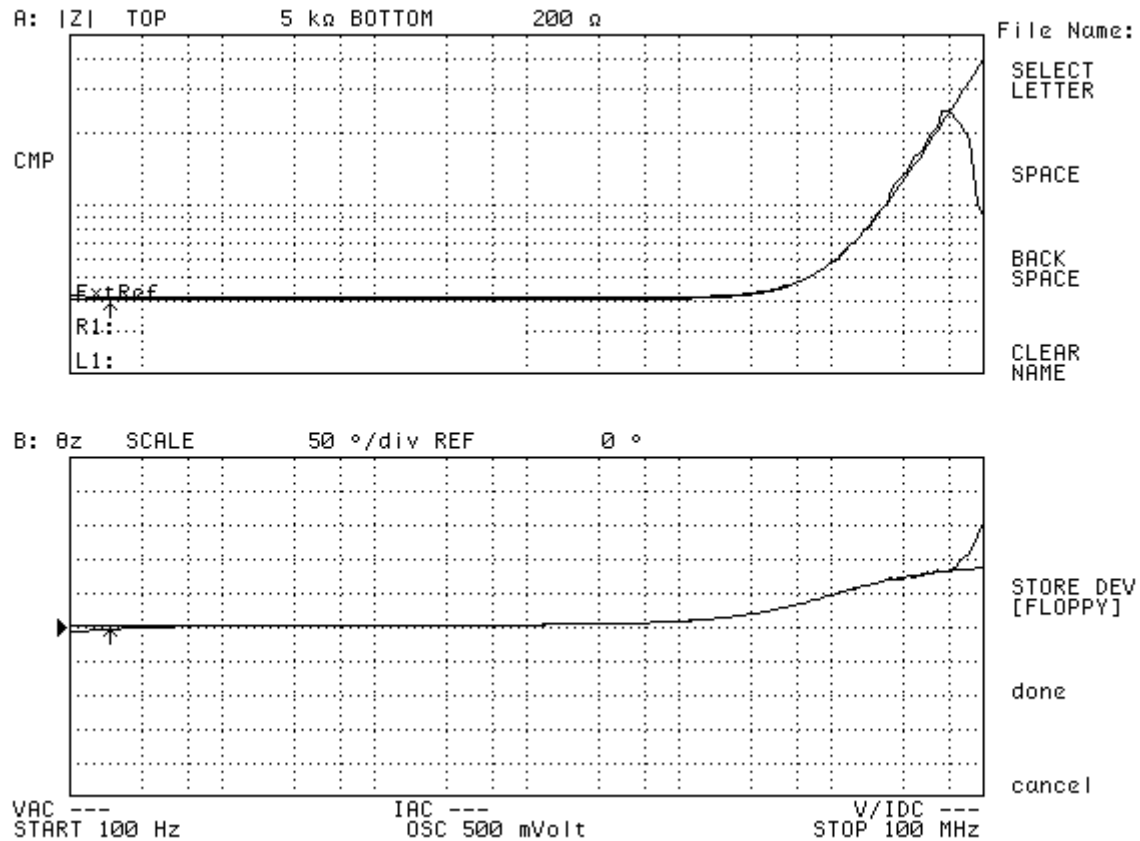
Optimization of Simulation

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

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

Attention

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



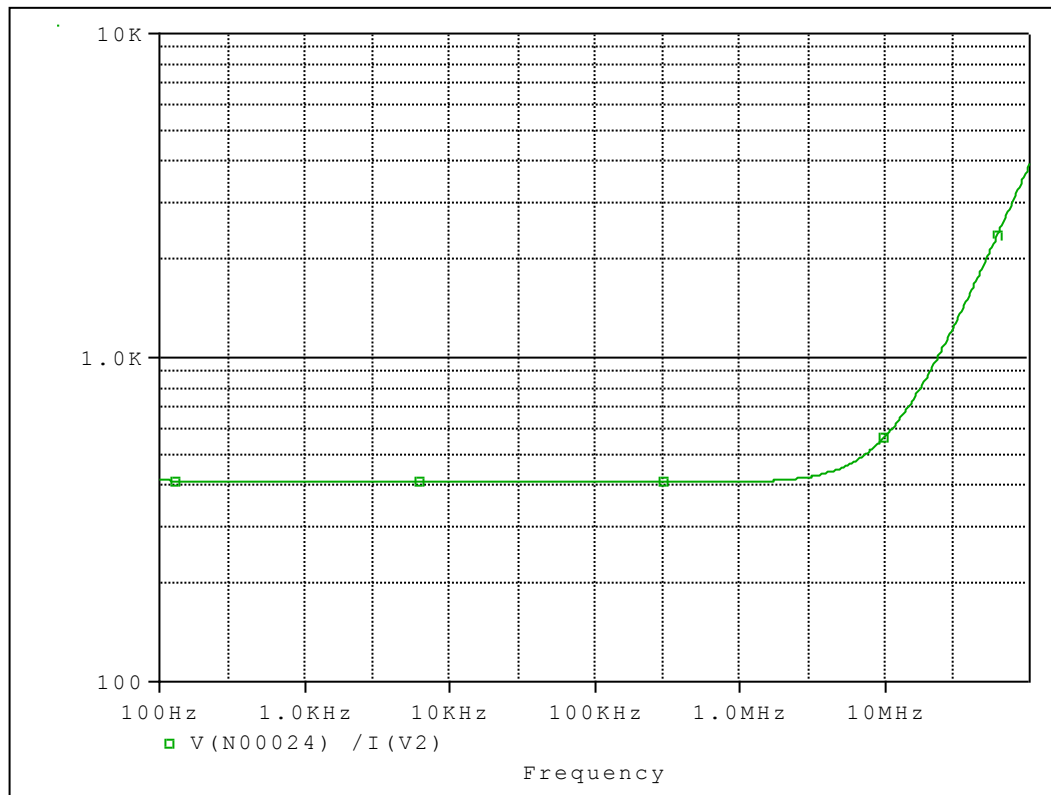
Measurement		
R1		
L1		
C1		

Equivalent circuit

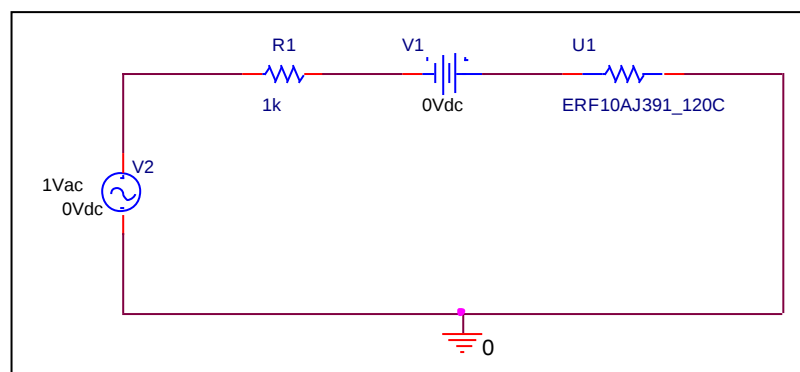


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	405.394	419.510	3.482
1K	405.643	411.741	1.503
10K	405.380	411.662	1.550
100K	405.380	411.680	1.554
1M	407.852	413.529	1.392
10M	575.974	568.845	1.238