

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ391
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

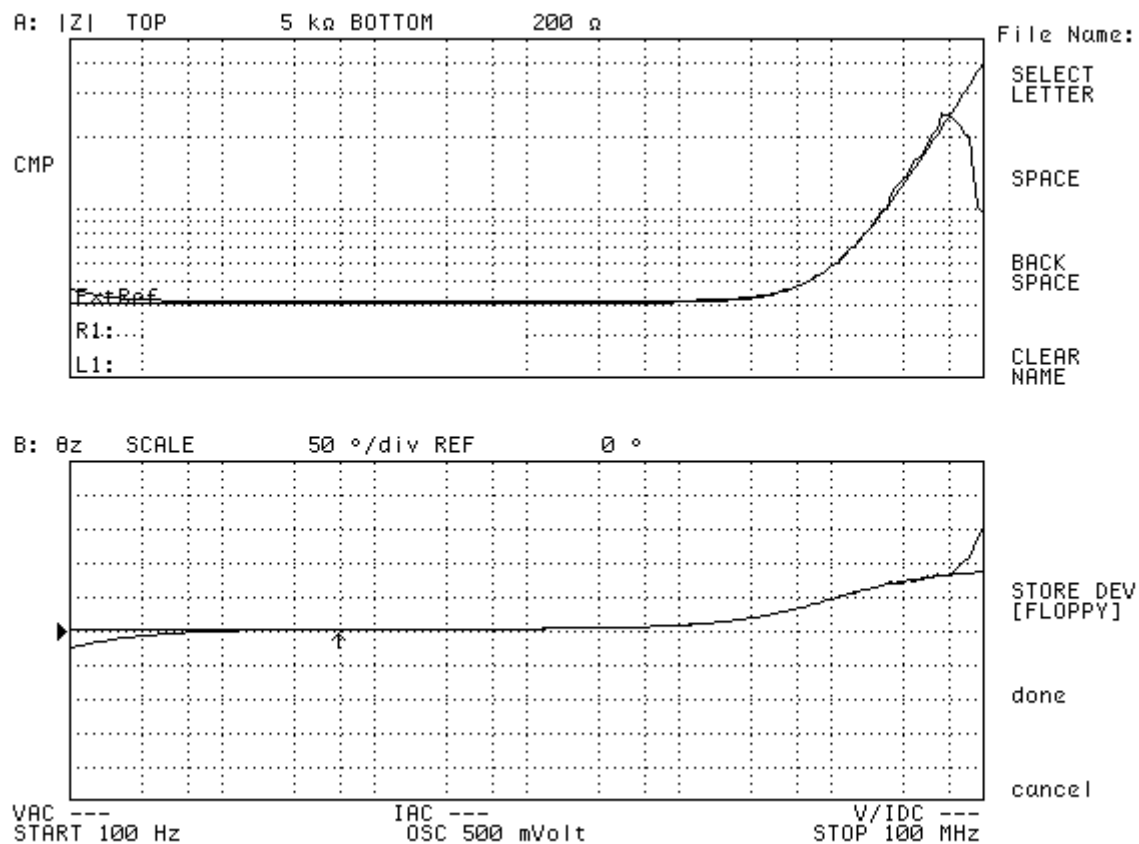
Optimization of Simulation

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

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

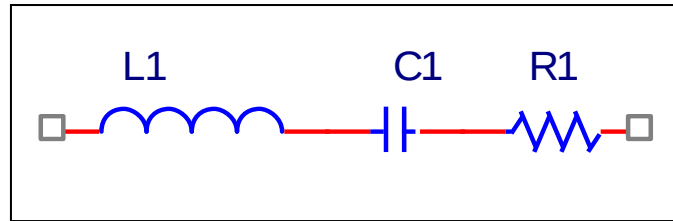
Attention

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



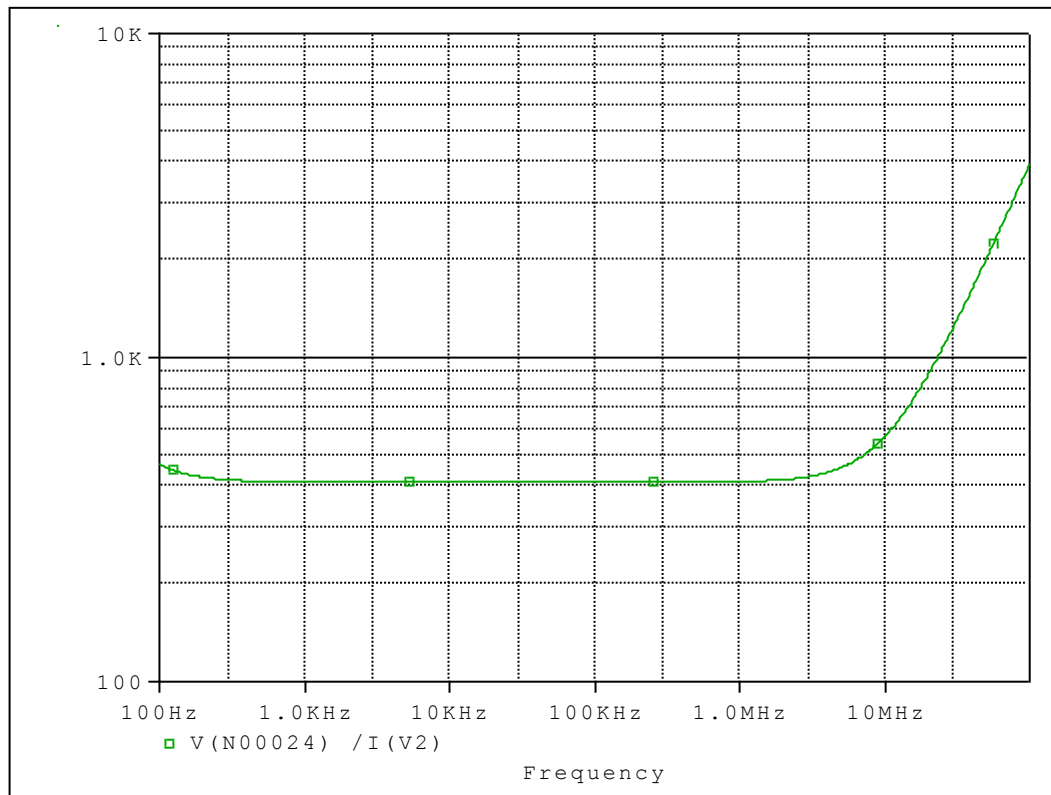
Measurement		
R1		
L1		
C1		

Equivalent circuit

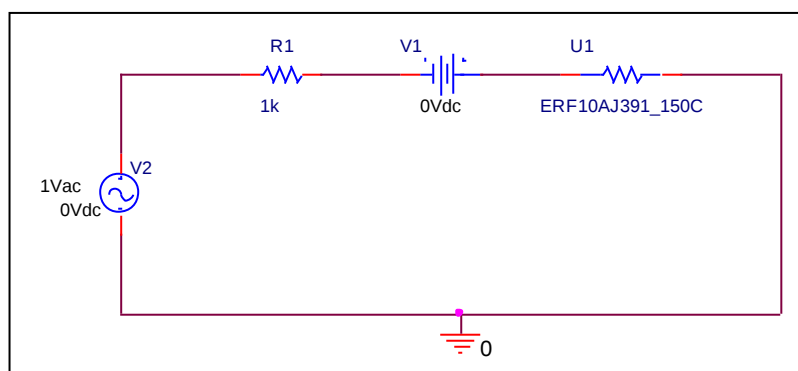


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	406.654	467.758	15.026
1K	406.634	413.518	1.693
10K	406.566	412.940	1.568
100K	406.759	412.953	1.523
1M	409.045	414.803	1.408
10M	577.462	570.284	1.243