

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ681
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

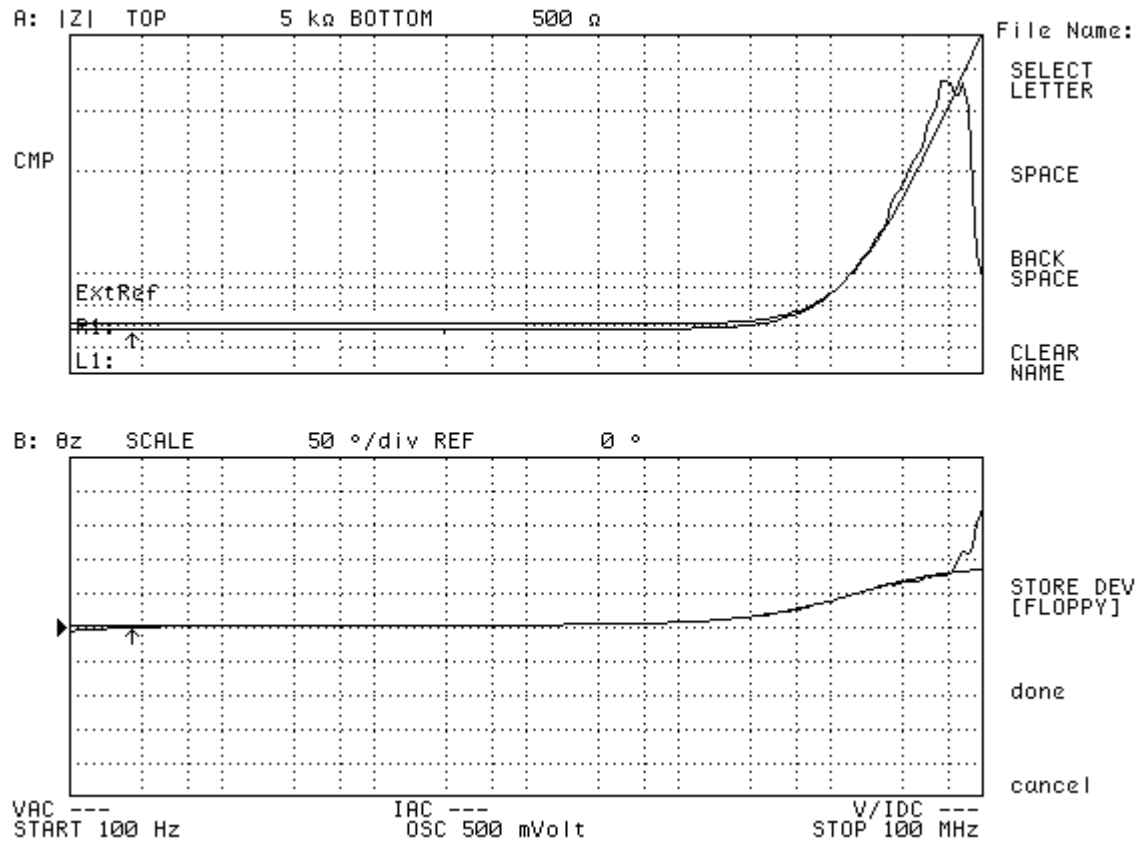
Optimization of Simulation

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

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

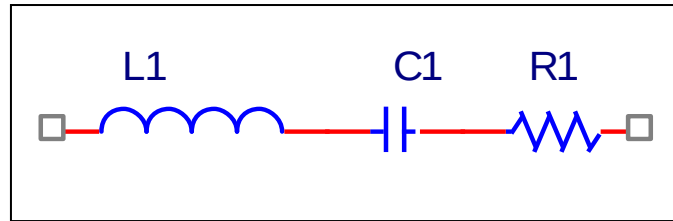
Attention

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



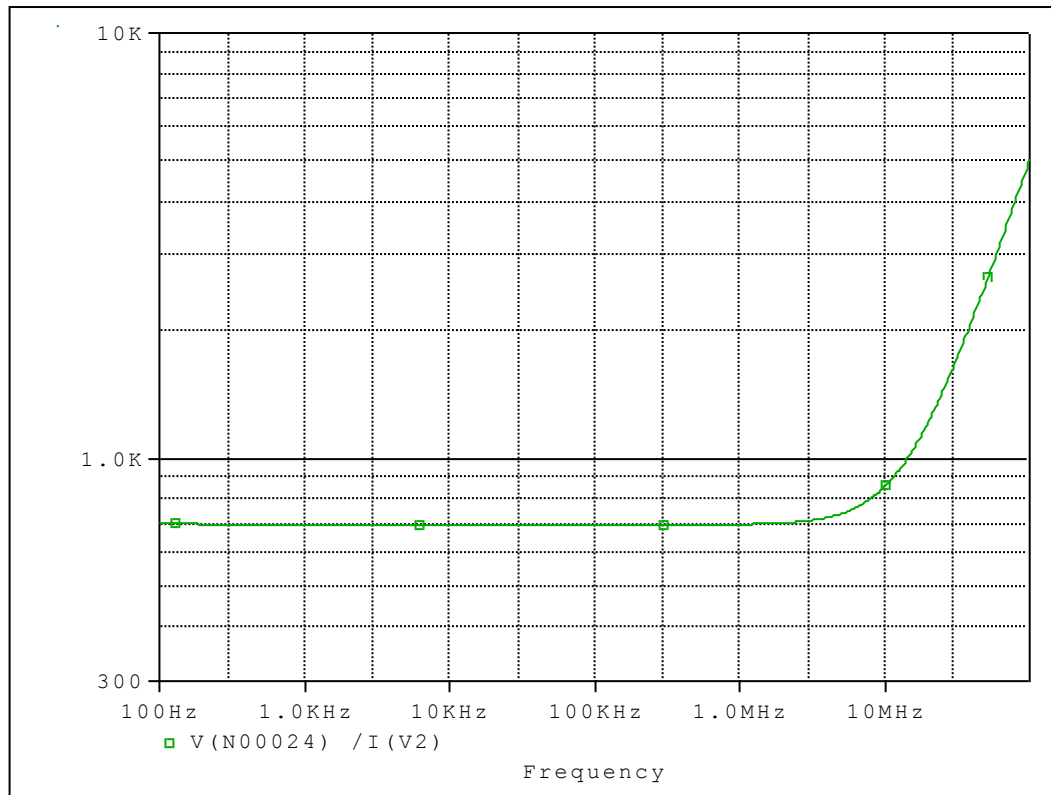
Measurement		
R1		
L1		
C1		

Equivalent circuit

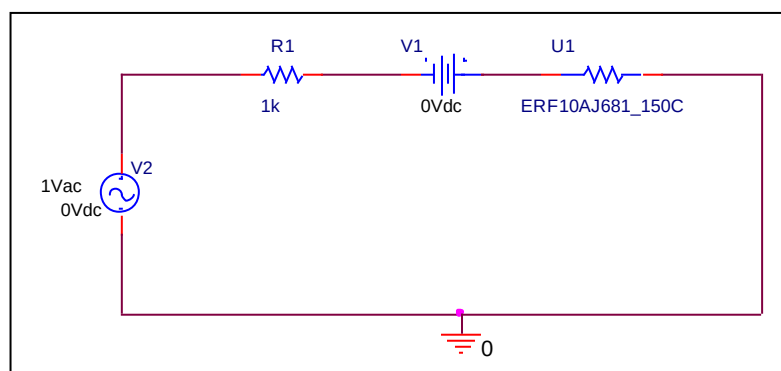


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	675.455	707.727	4.778
1K	675.412	699.099	3.507
10K	675.405	699.012	3.495
100K	675.557	699.209	3.501
1M	677.923	700.788	3.373
10M	857.497	858.670	0.137