

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ681
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

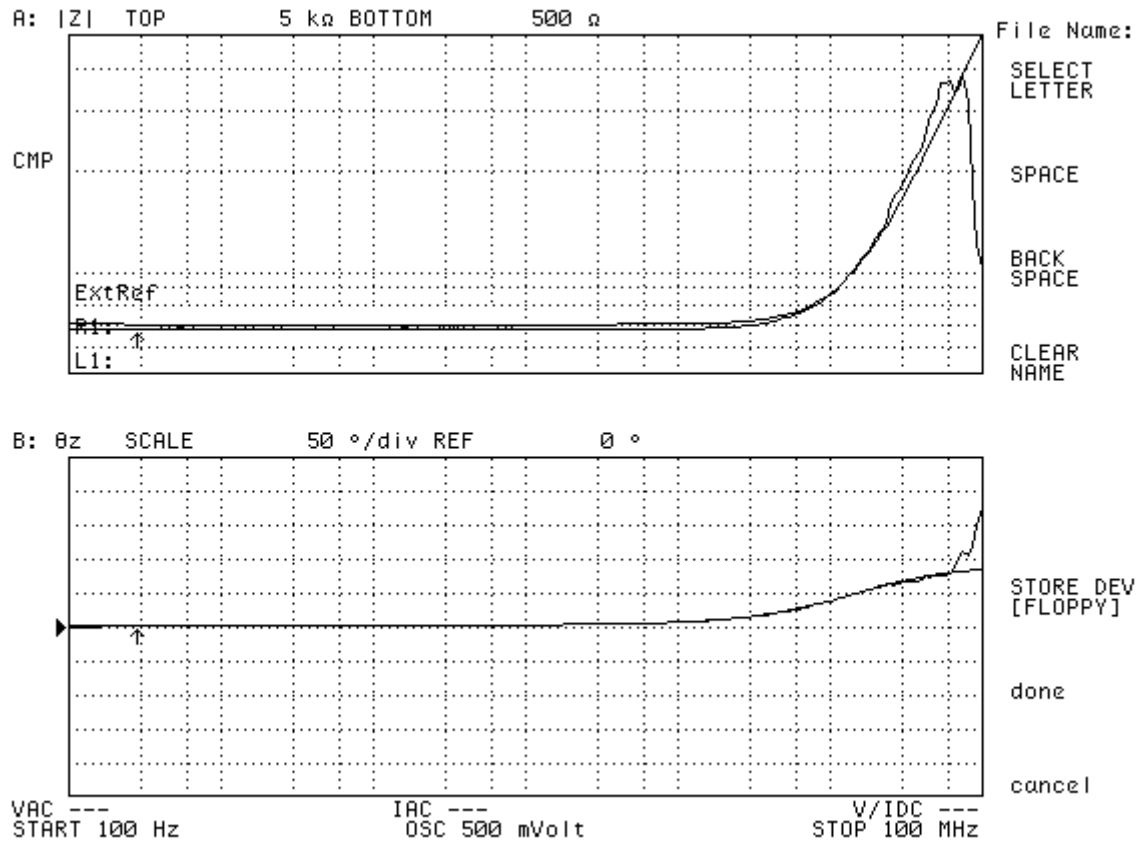
Optimization of Simulation

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)



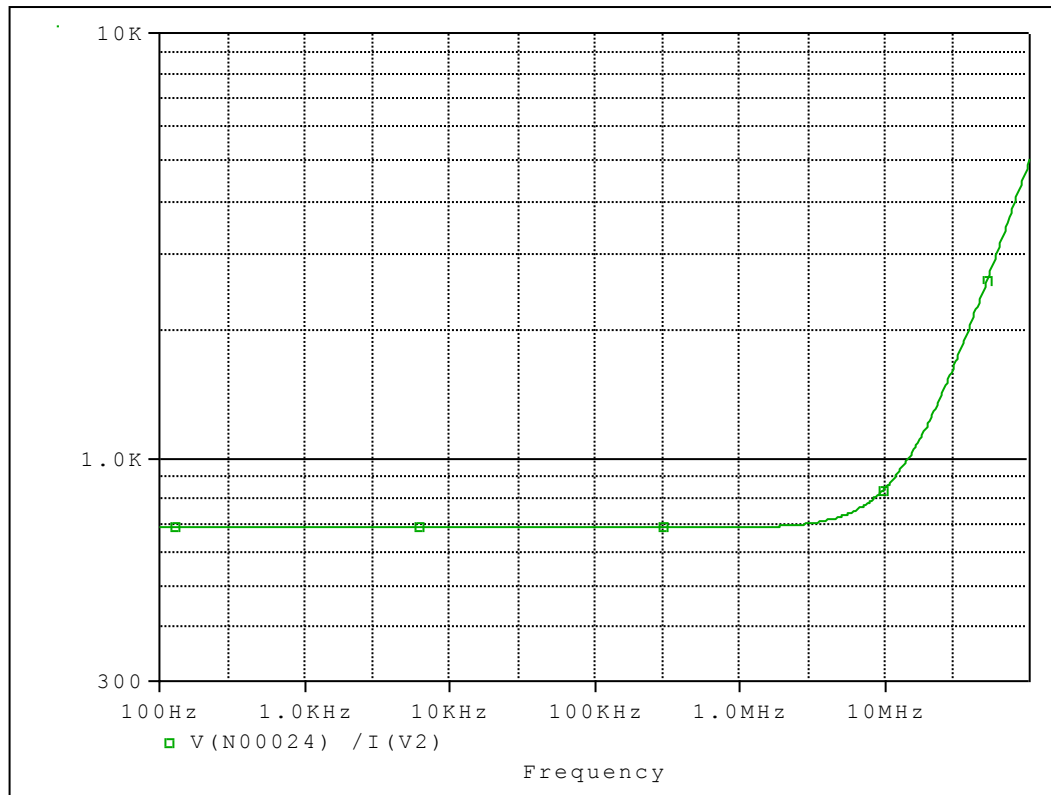
Measurement		
R1		
L1		
C1		

Equivalent circuit

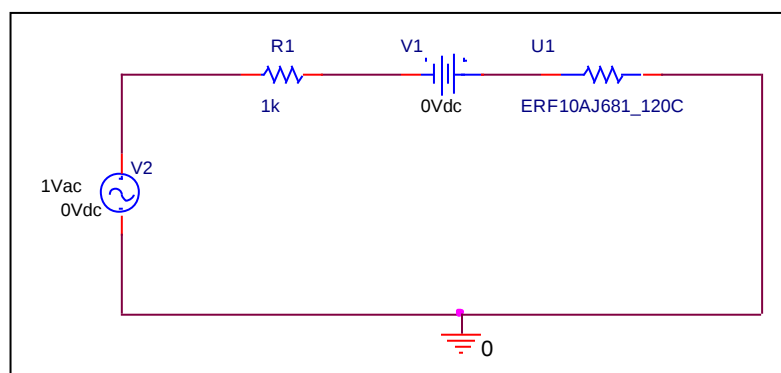


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	674.612	687.826	1.959
1K	674.664	687.771	1.943
10K	675.057	687.770	1.883
100K	674.623	687.778	1.950
1M	677.017	689.574	1.855
10M	856.083	849.431	0.777