

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ680
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

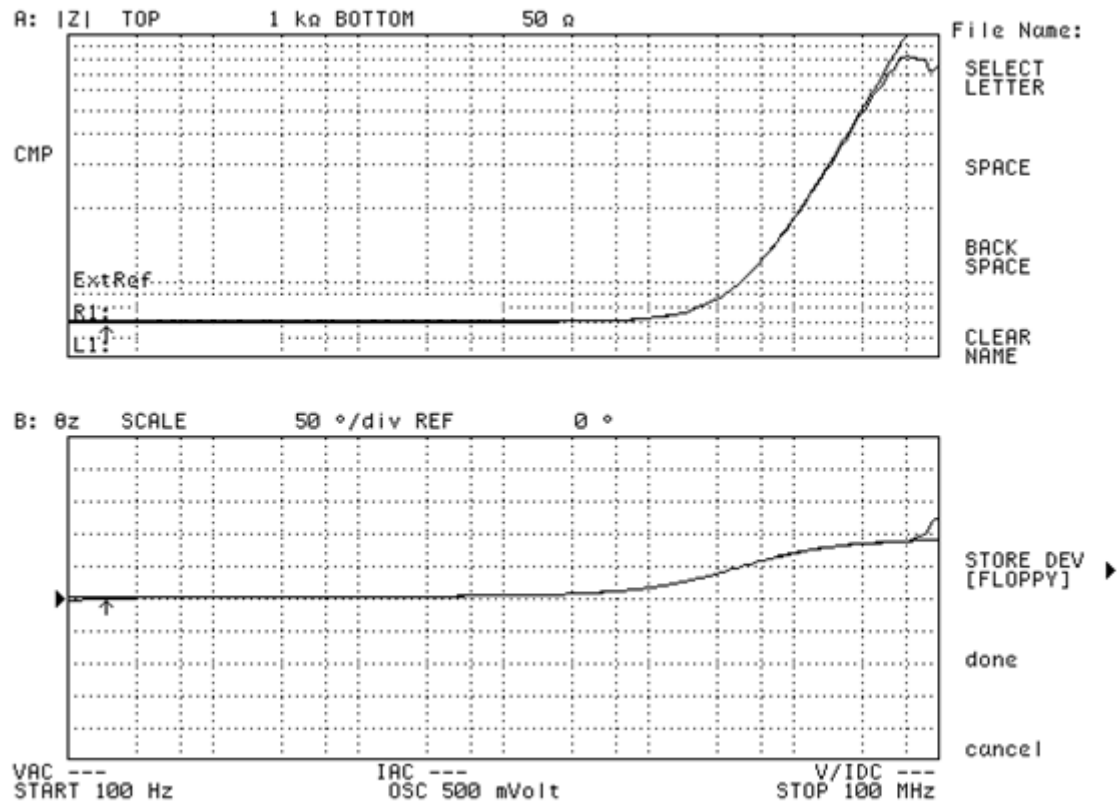
Optimization of Simulation

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)



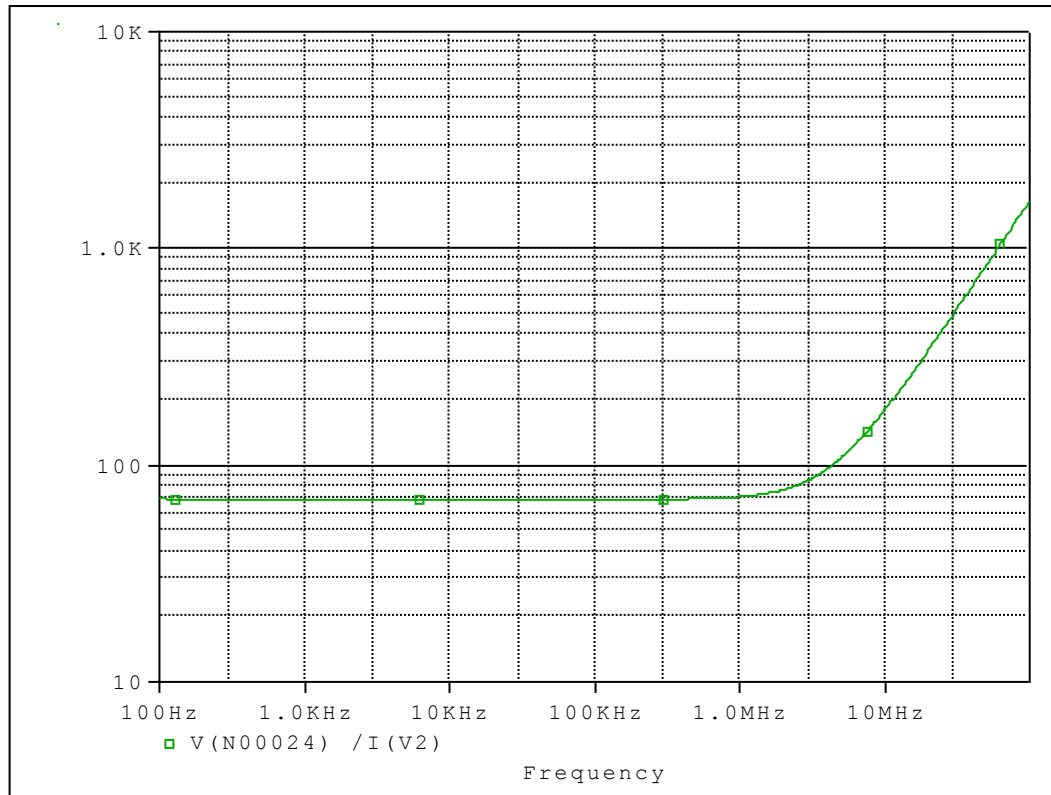
Measurement		
R1		
L1		
C1		

Equivalent circuit

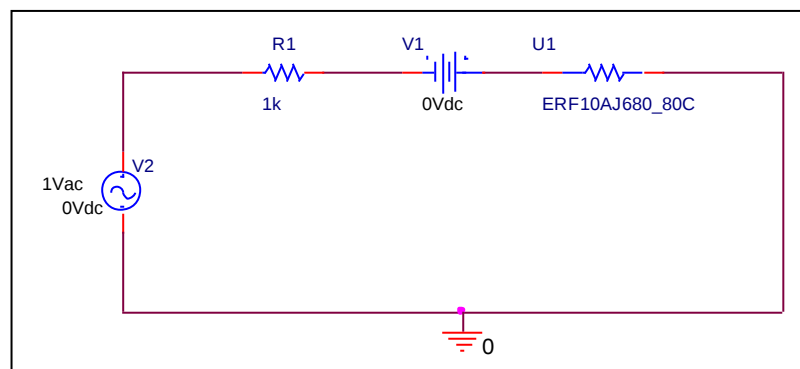


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	69.480	70.016	0.771
1K	69.476	69.542	0.095
10K	69.502	69.538	0.052
100K	69.536	69.557	0.031
1M	71.839	71.479	0.501
10M	181.470	179.479	1.097