

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ101
THERMAL:TA=80 (degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

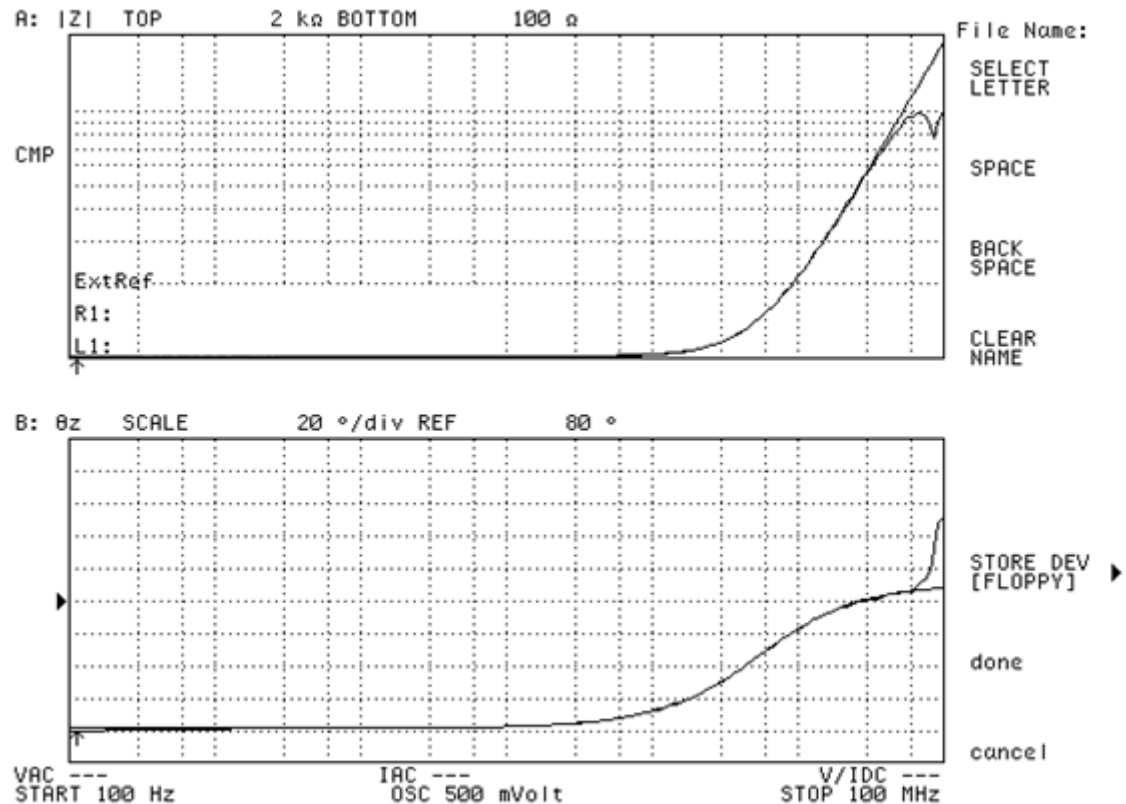
Optimization of Simulation

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

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

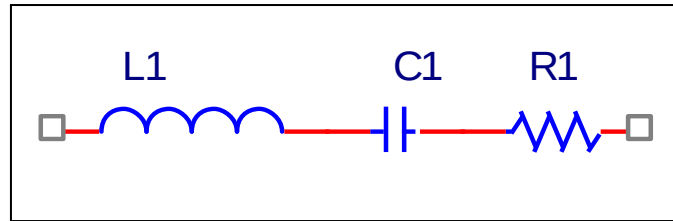
Attention

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



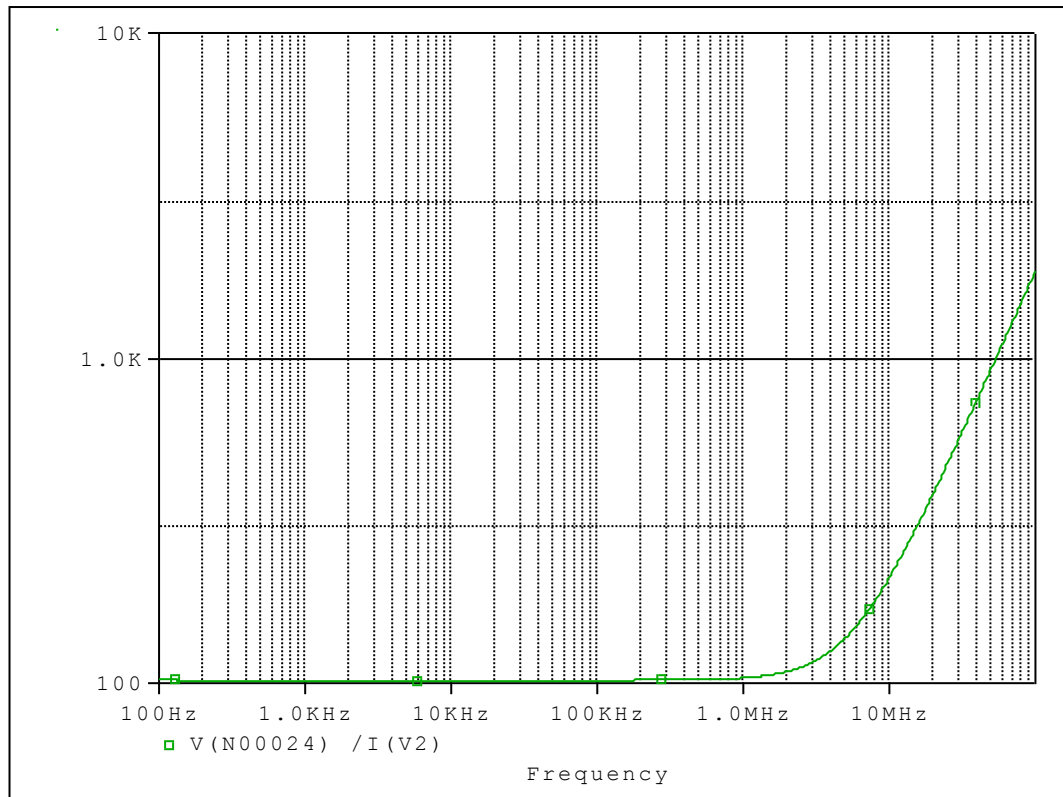
Measurement		
R1		
L1		
C1		

Equivalent circuit

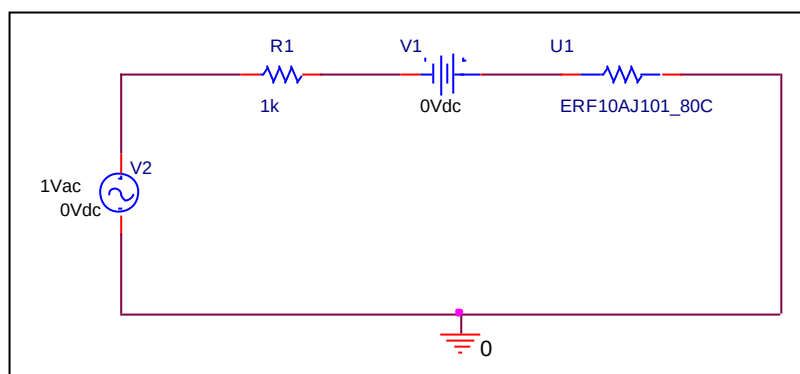


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	101.442	102.192	0.739
1K	101.415	102.905	1.469
10K	101.438	102.904	1.445
100K	101.420	102.111	0.682
1M	103.502	103.757	0.247
10M	214.297	211.342	1.379