

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ301
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

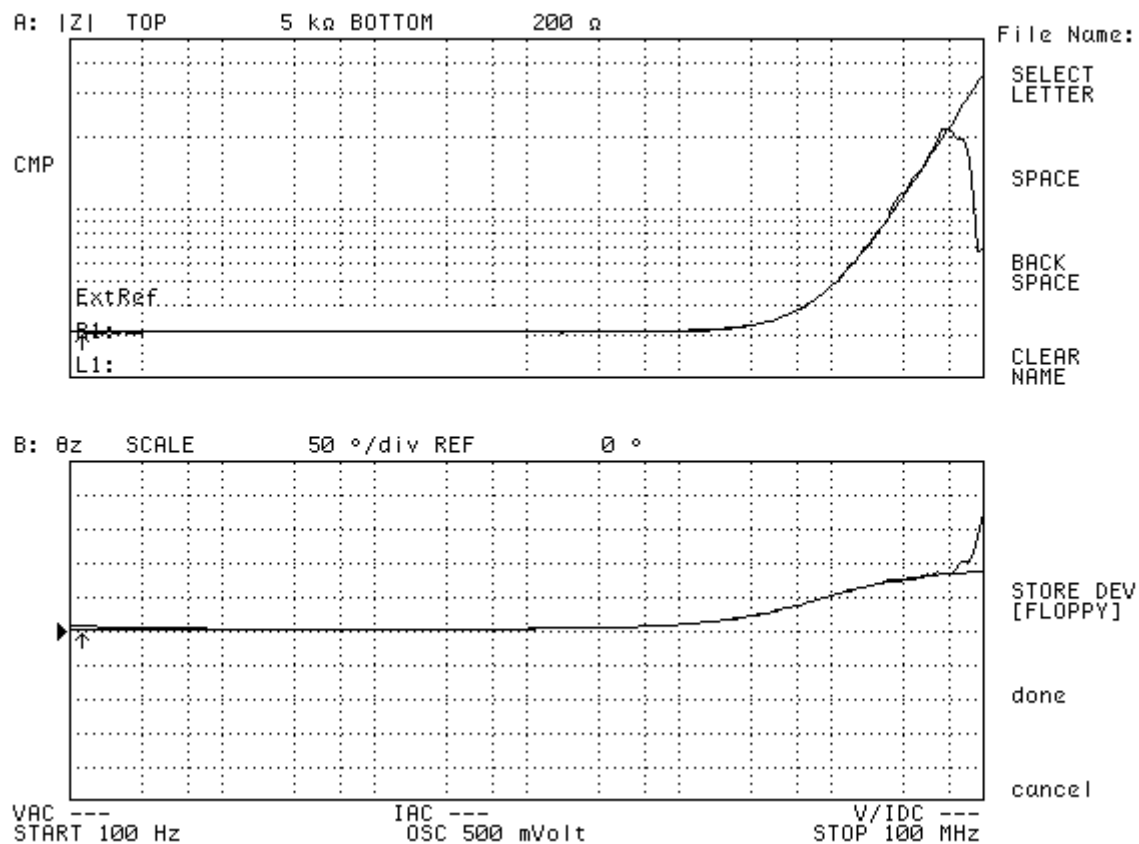
Optimization of Simulation

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)



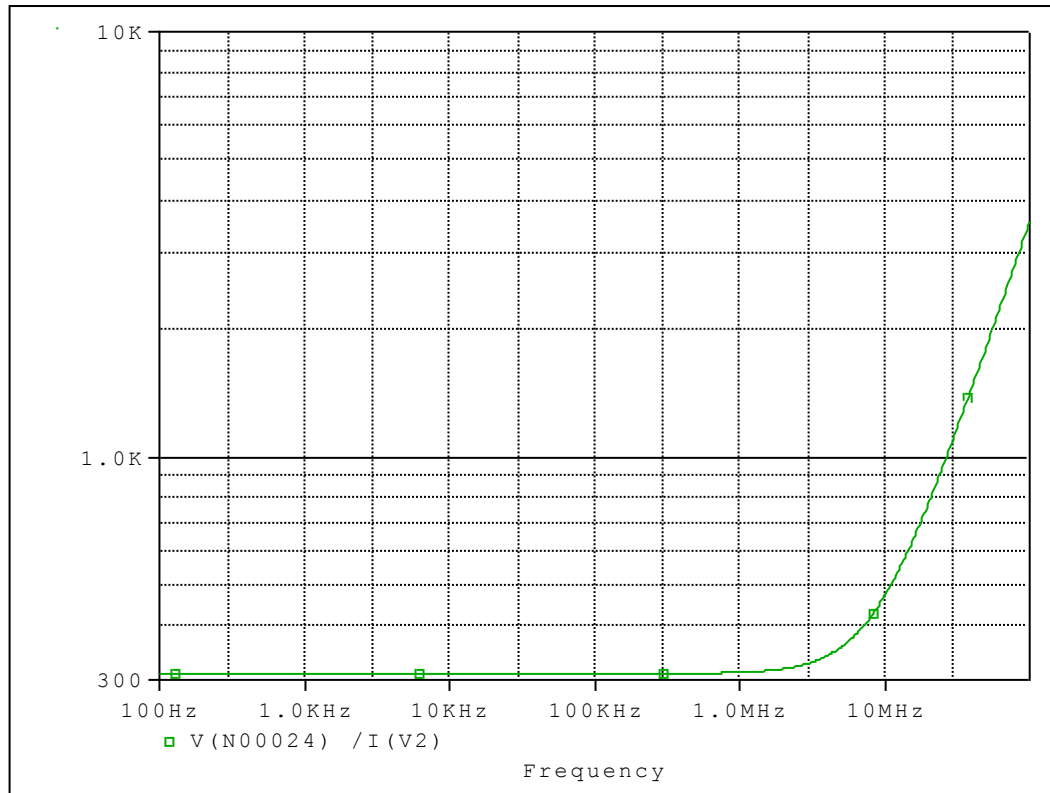
Measurement		
R1		
L1		
C1		

Equivalent circuit

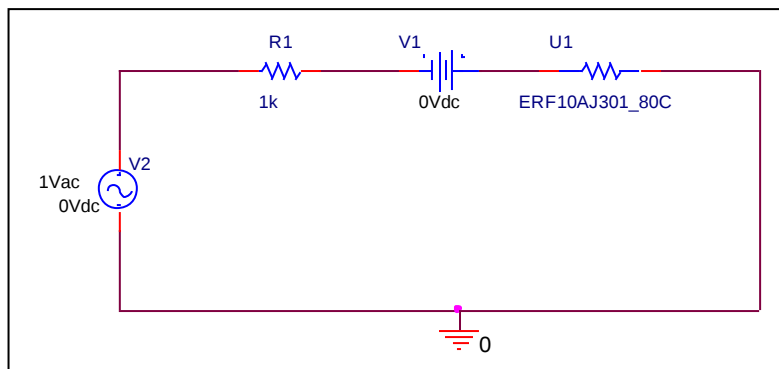


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	307.833	310.450	0.850
1K	307.888	310.450	0.832
10K	307.822	310.450	0.854
100K	307.840	310.471	0.855
1M	310.510	312.492	0.638
10M	480.527	472.837	1.600