

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ301
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

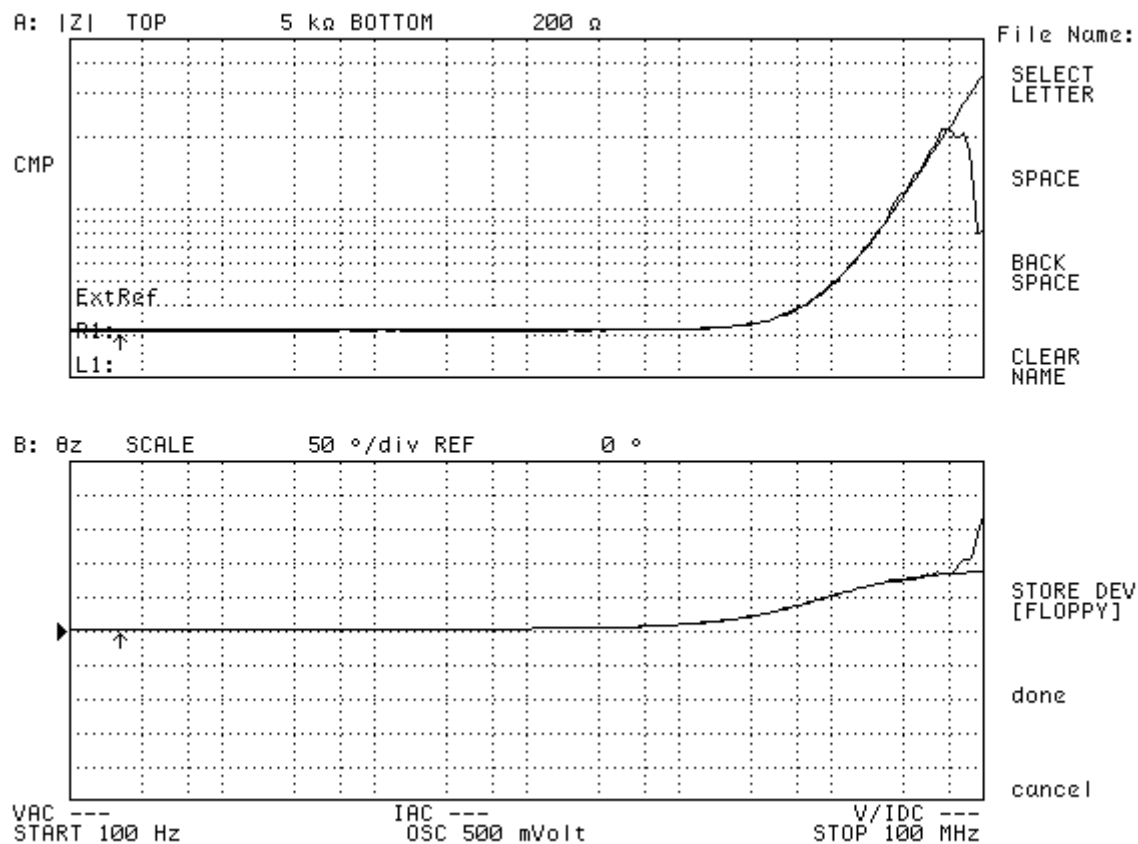
Optimization of Simulation

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)



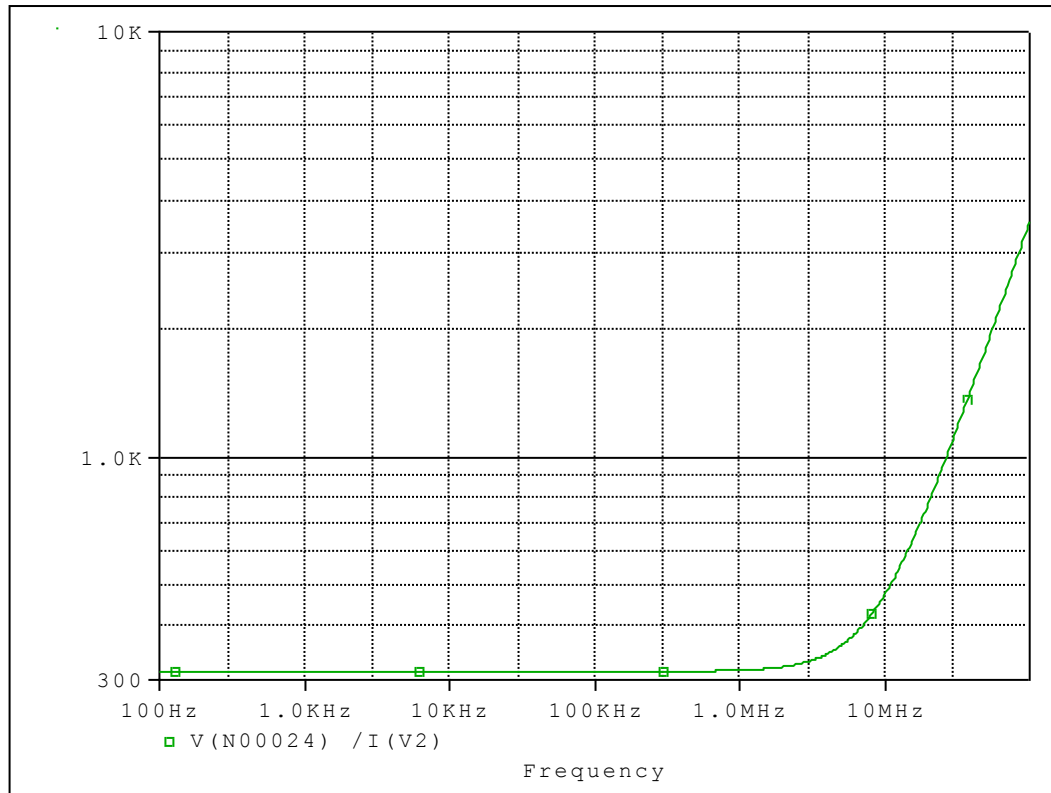
Measurement		
R1		
L1		
C1		

Equivalent circuit

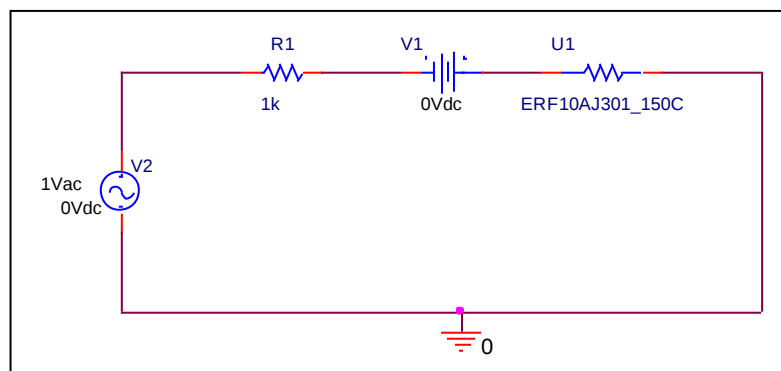


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	312.819	314.053	0.394
1K	313.016	314.039	0.327
10K	312.778	314.039	0.403
100K	312.866	314.059	0.381
1M	315.591	316.056	0.147
10M	485.255	475.070	2.099