

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ121
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

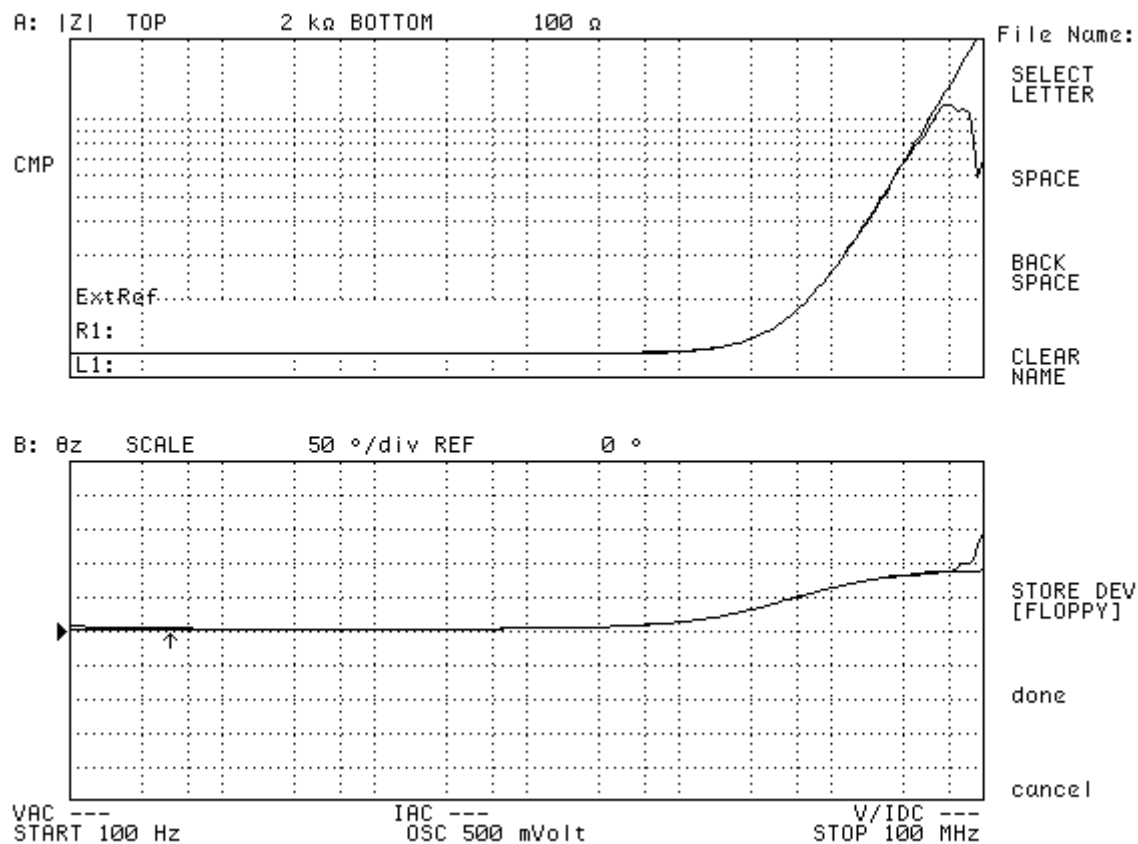
Optimization of Simulation

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)



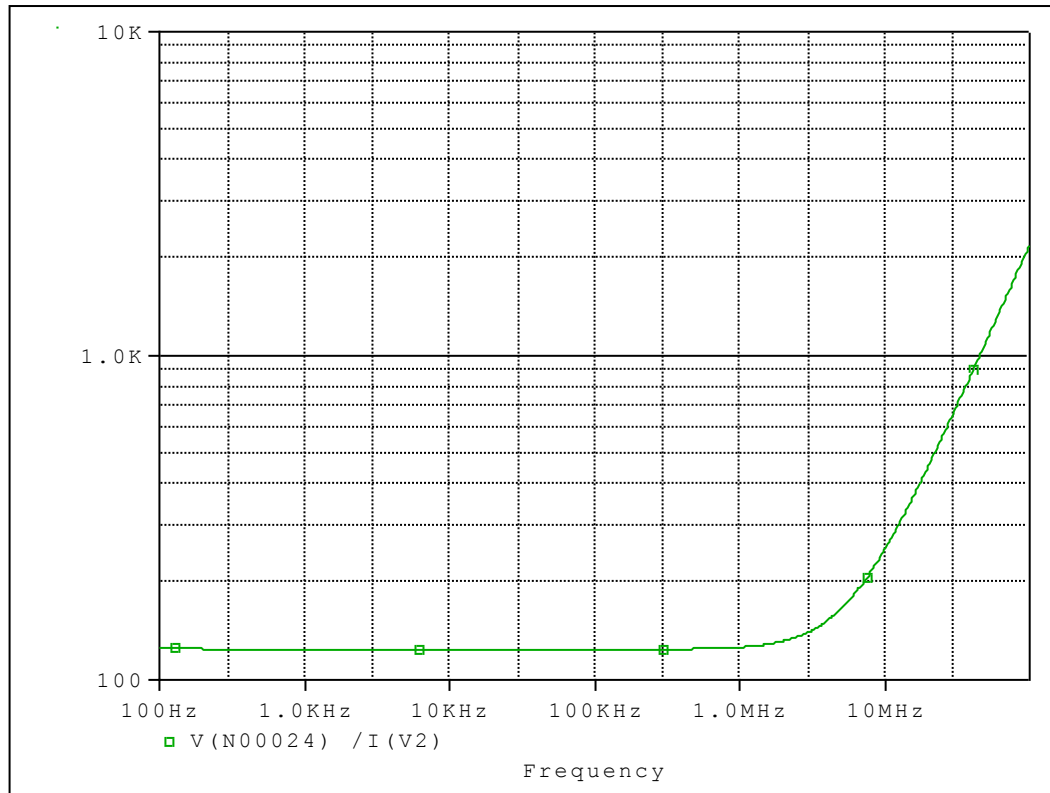
Measurement		
R1		
L1		
C1		

Equivalent circuit

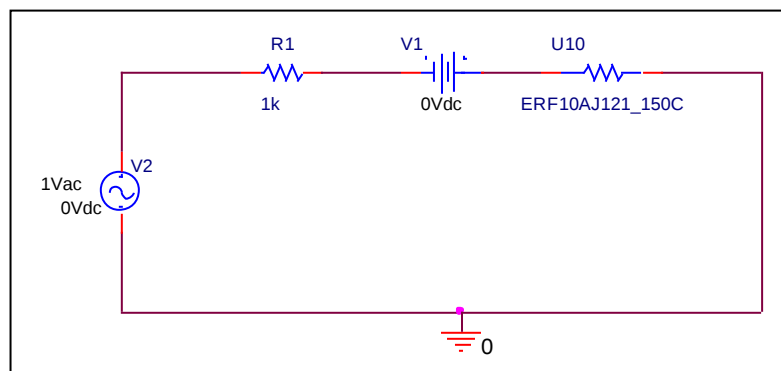


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	123.126	125.881	2.238
1K	123.177	124.224	0.850
10K	123.083	124.207	0.913
100K	123.149	124.226	0.874
1M	125.491	126.131	0.510
10M	255.901	252.211	1.442