

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ151
THERMAL: TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

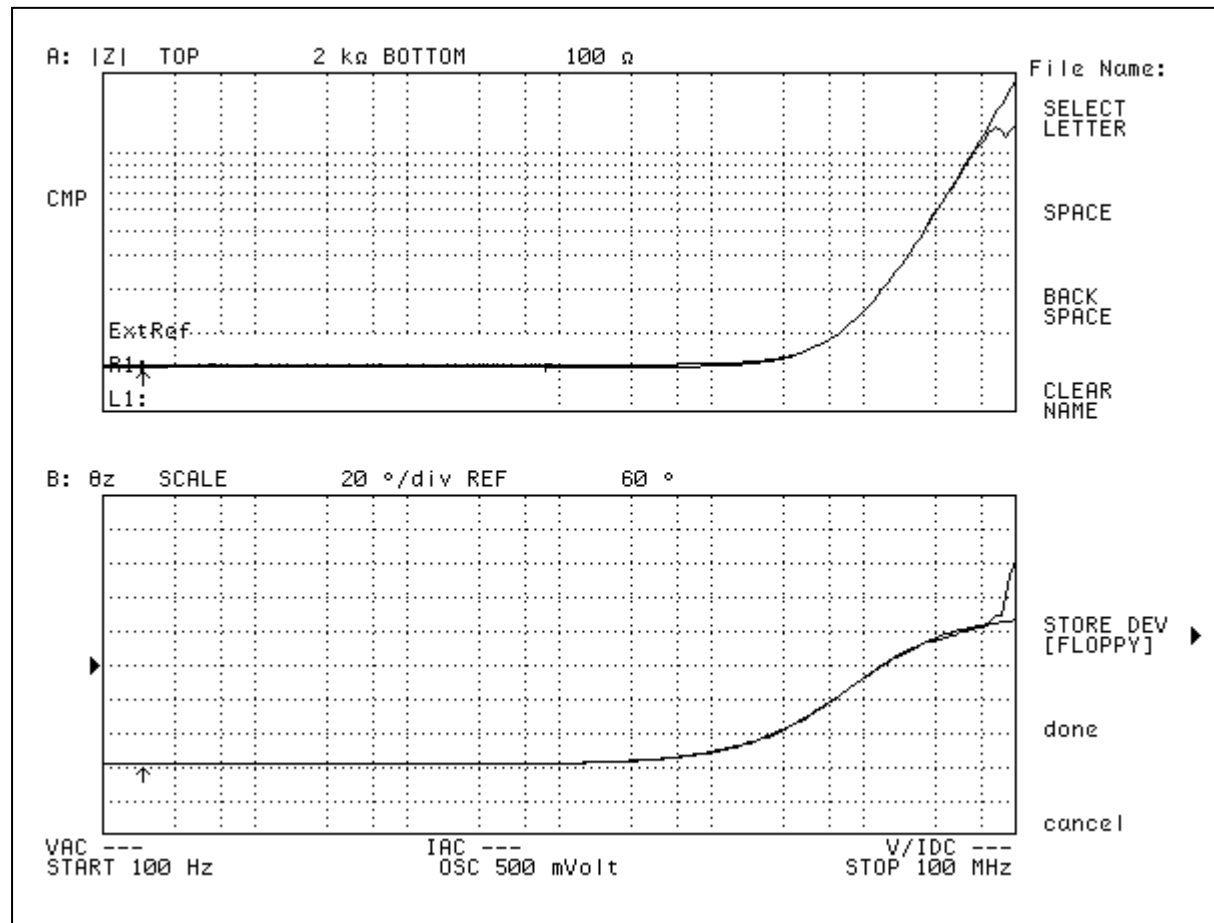
Optimization of Simulation

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

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

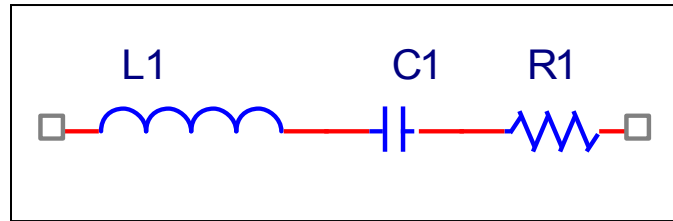
Attention

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



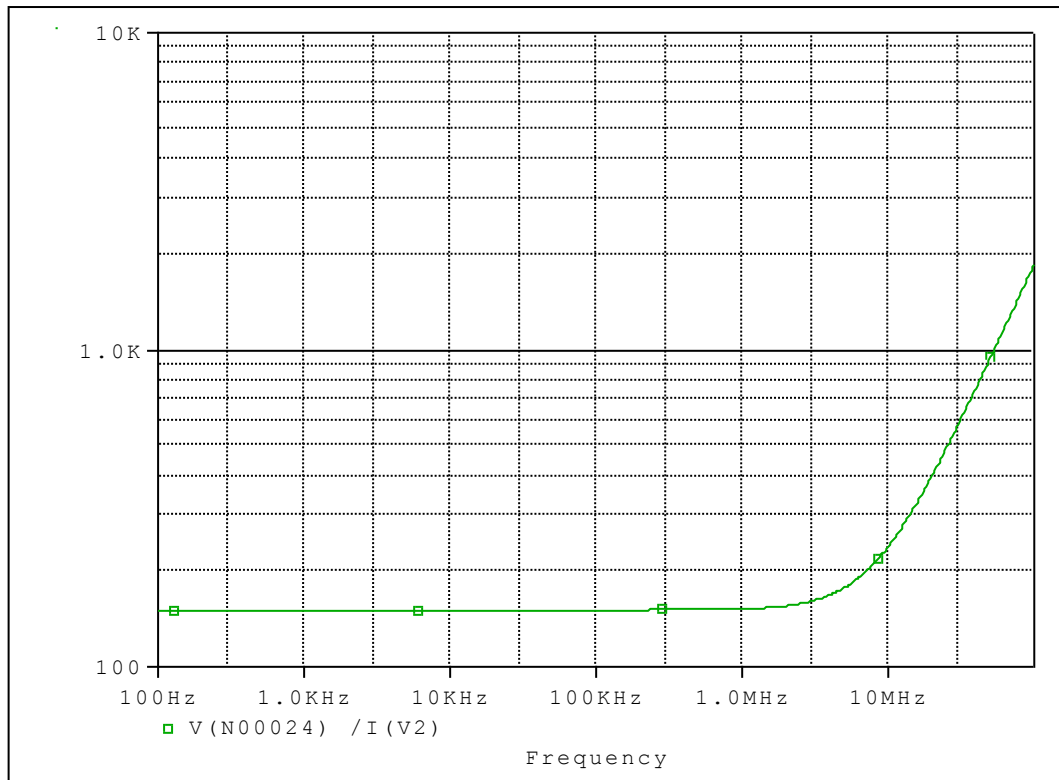
Measurement		
R1		
L1		
C1		

Equivalent circuit

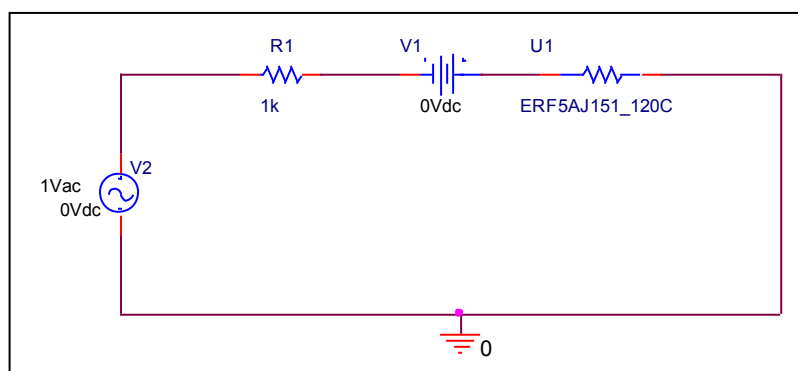


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	147.778	151.234	2.339
1K	147.799	151.230	2.322
10K	147.757	151.230	2.351
100K	147.819	151.241	2.315
1M	149.789	152.369	1.722
10M	243.846	239.694	1.703