

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ220
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

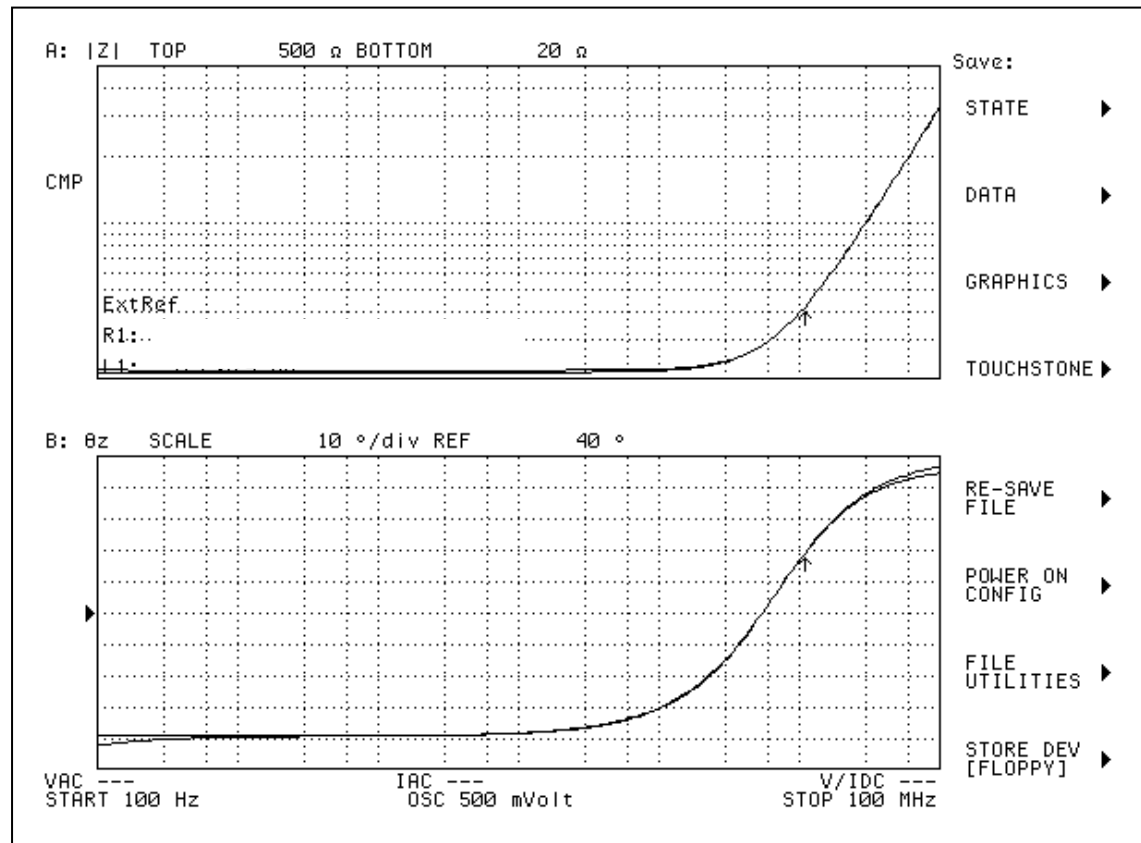
Optimization of Simulation

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

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

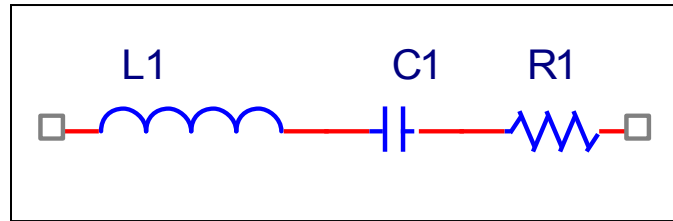
Attention

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



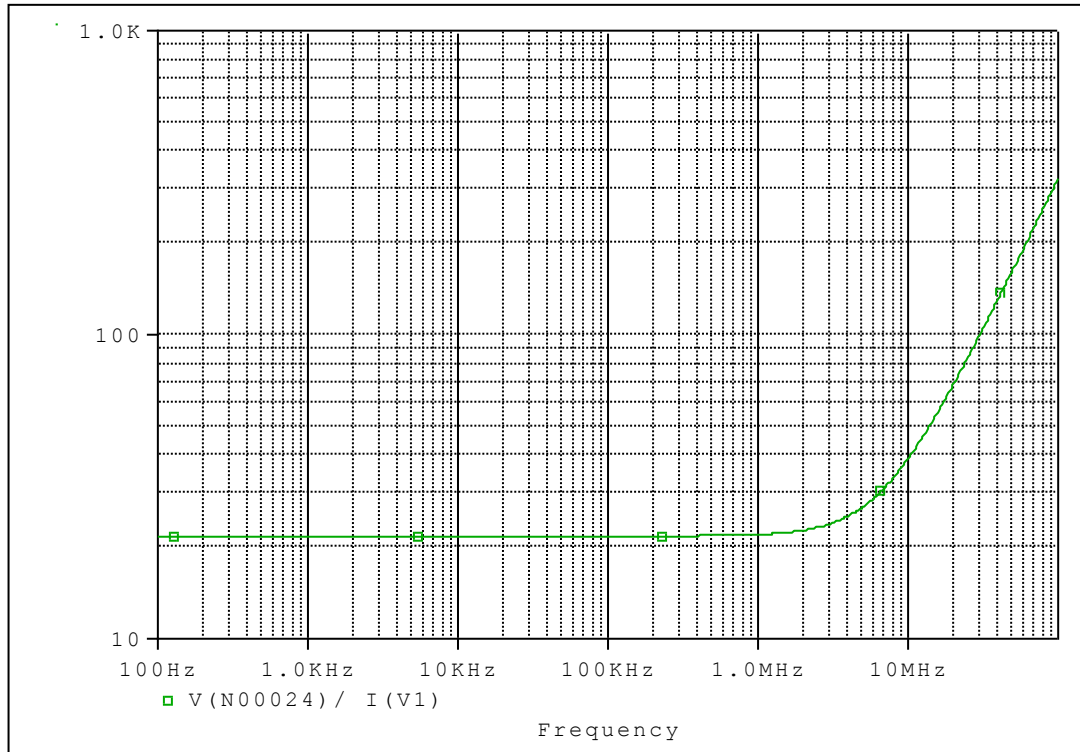
Measurement		
R1		
L1		
C1		

Equivalent circuit

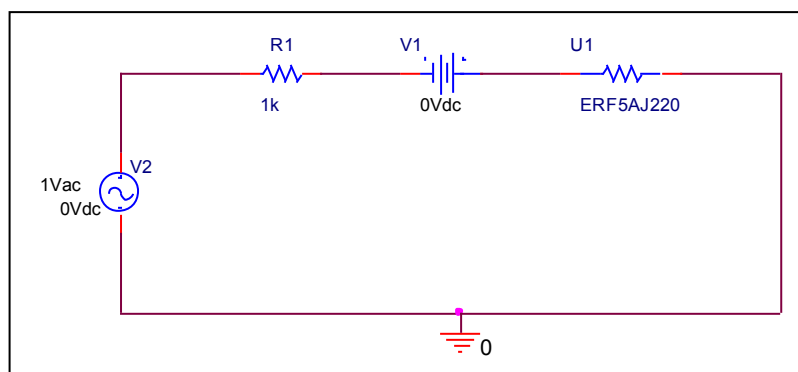


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	21.313	21.812	2.340
1K	21.318	21.799	2.256
10K	21.310	21.799	2.294
100K	21.318	21.781	2.172
1M	21.678	22.018	1.567
10M	38.975	39.006	0.080
100M	327.779	324.331	1.052