

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ151
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

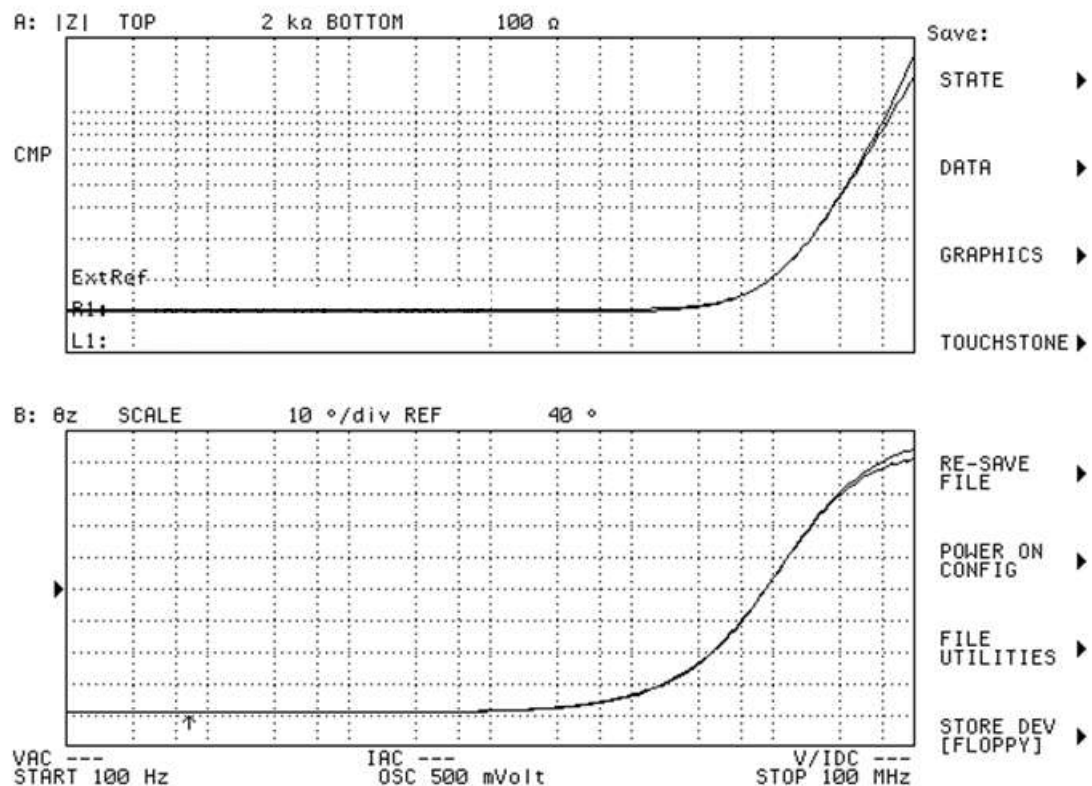
Optimization of Simulation

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

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

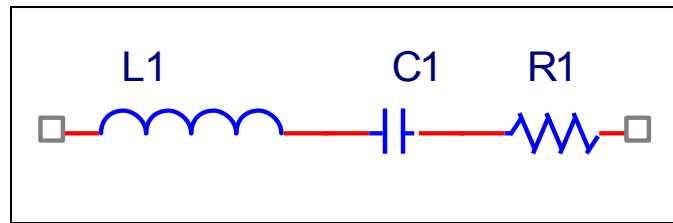
Attention

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



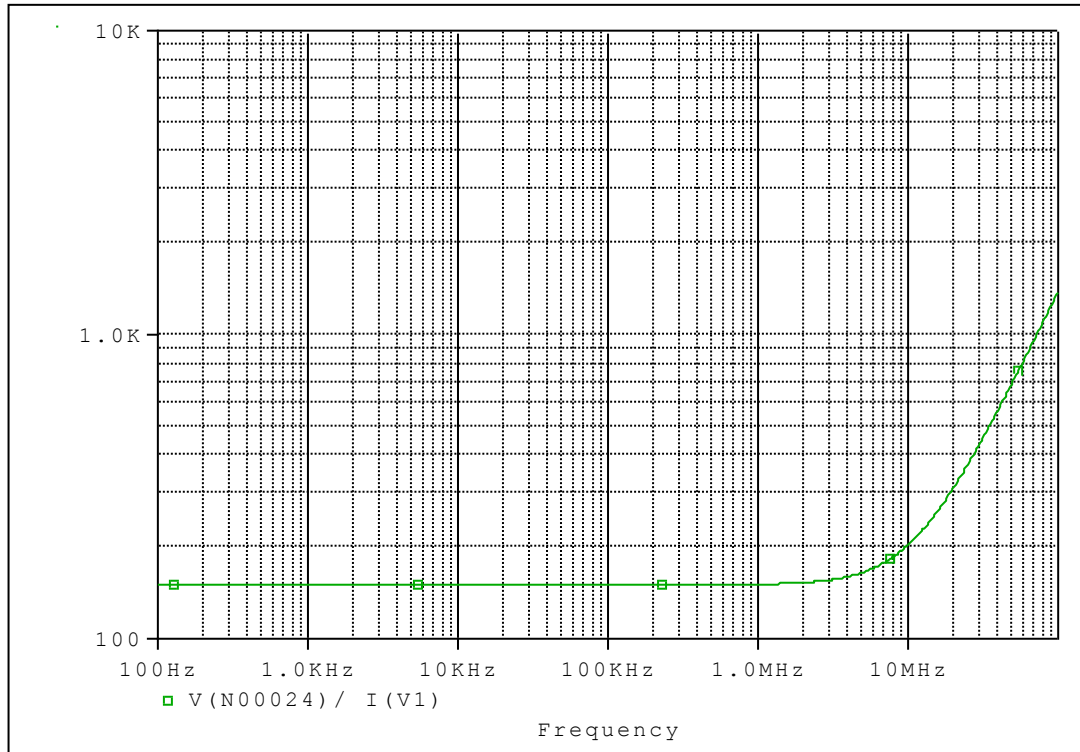
Measurement		
R1		
L1		
C1		

Equivalent circuit

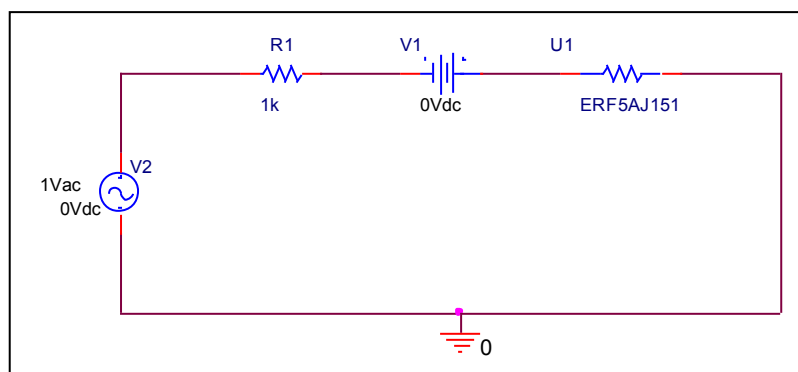


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	146.698	150.487	2.583
1K	146.716	150.485	2.569
10K	146.700	150.485	2.580
100K	146.706	150.491	2.580
1M	147.898	151.105	2.168
10M	203.409	203.340	0.034