

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ330
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

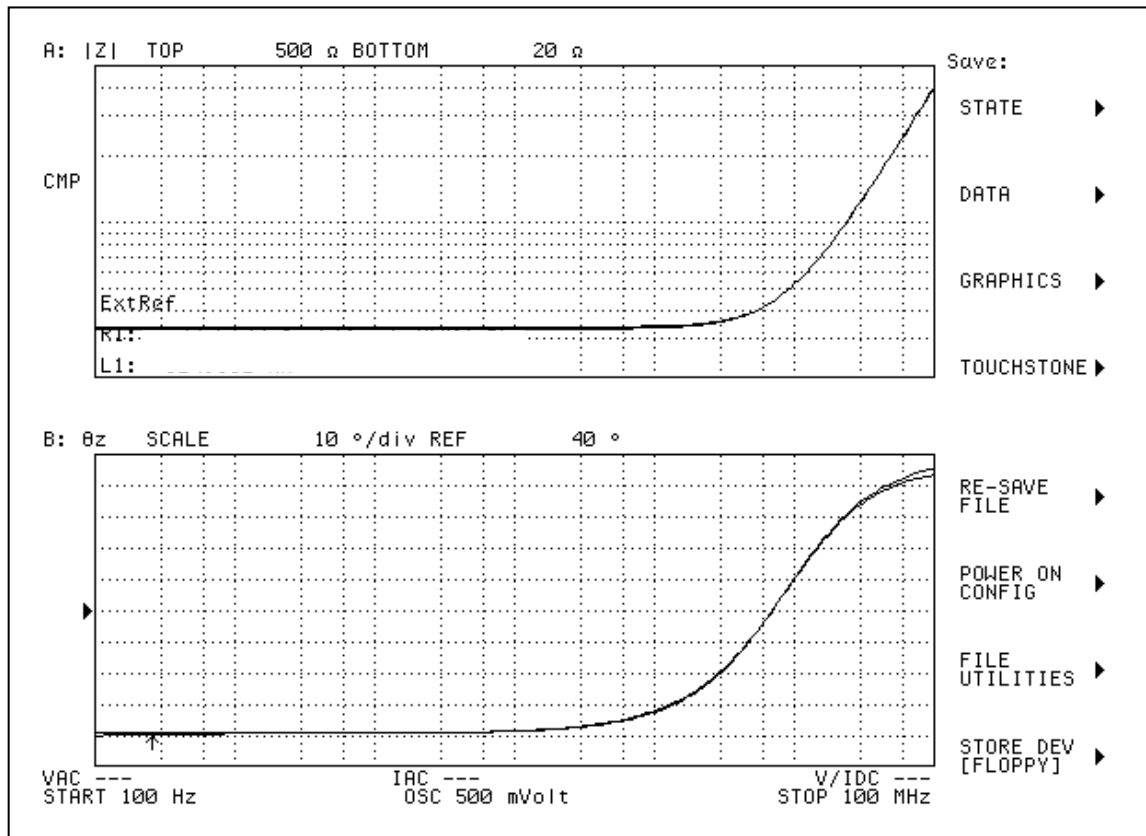
Optimization of Simulation

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

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

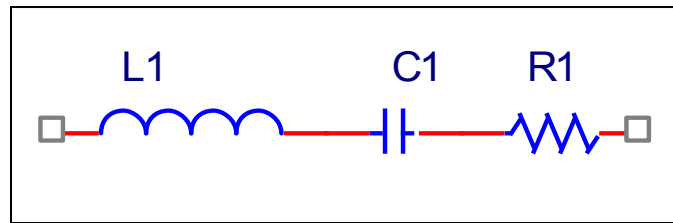
Attention

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



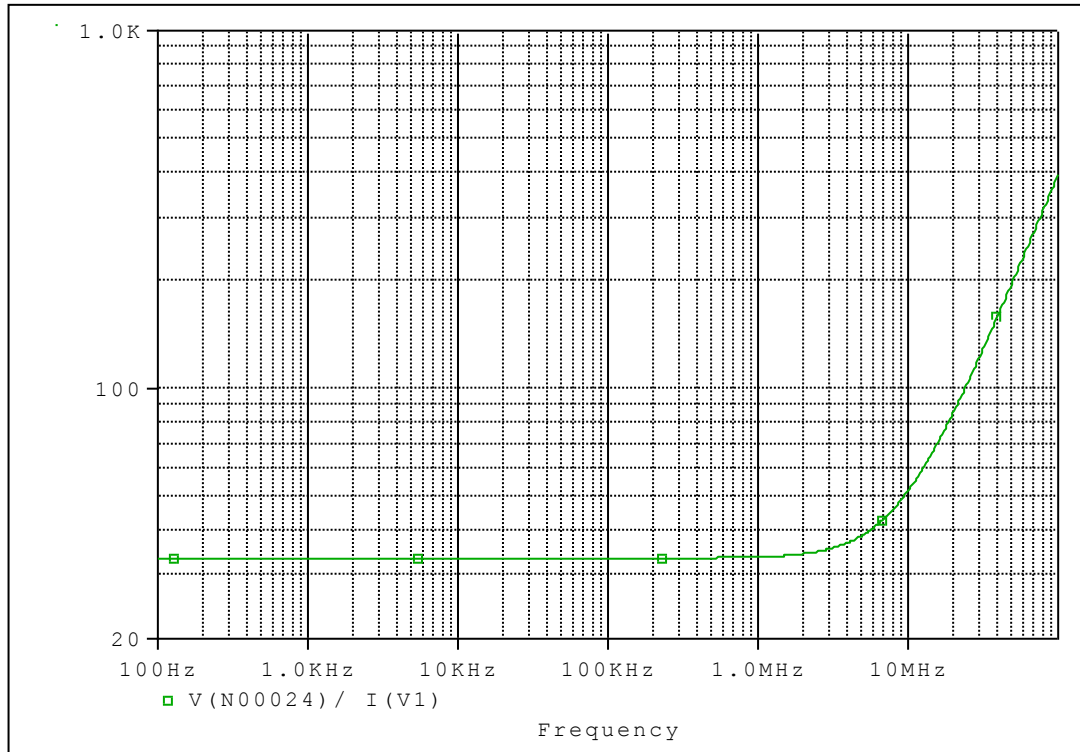
Measurement		
R1		
L1		
C1		

Equivalent circuit

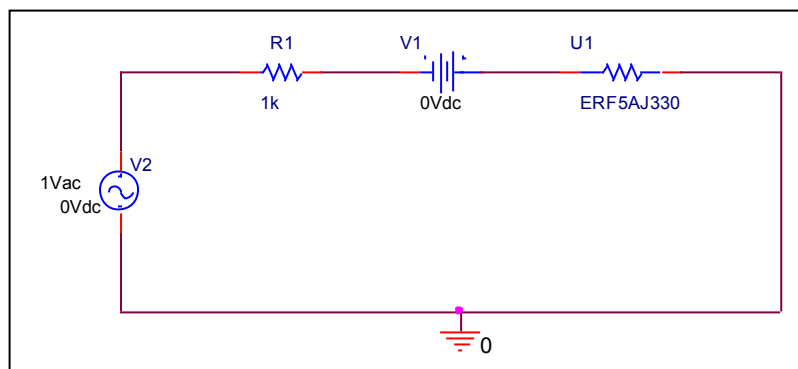


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	32.921	33.640	2.184
1K	32.928	33.617	2.092
10K	32.932	33.617	2.080
100K	32.938	33.619	2.068
1M	33.293	33.845	1.658
10M	51.719	51.691	0.054
100M	401.002	394.098	1.722