

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ150
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

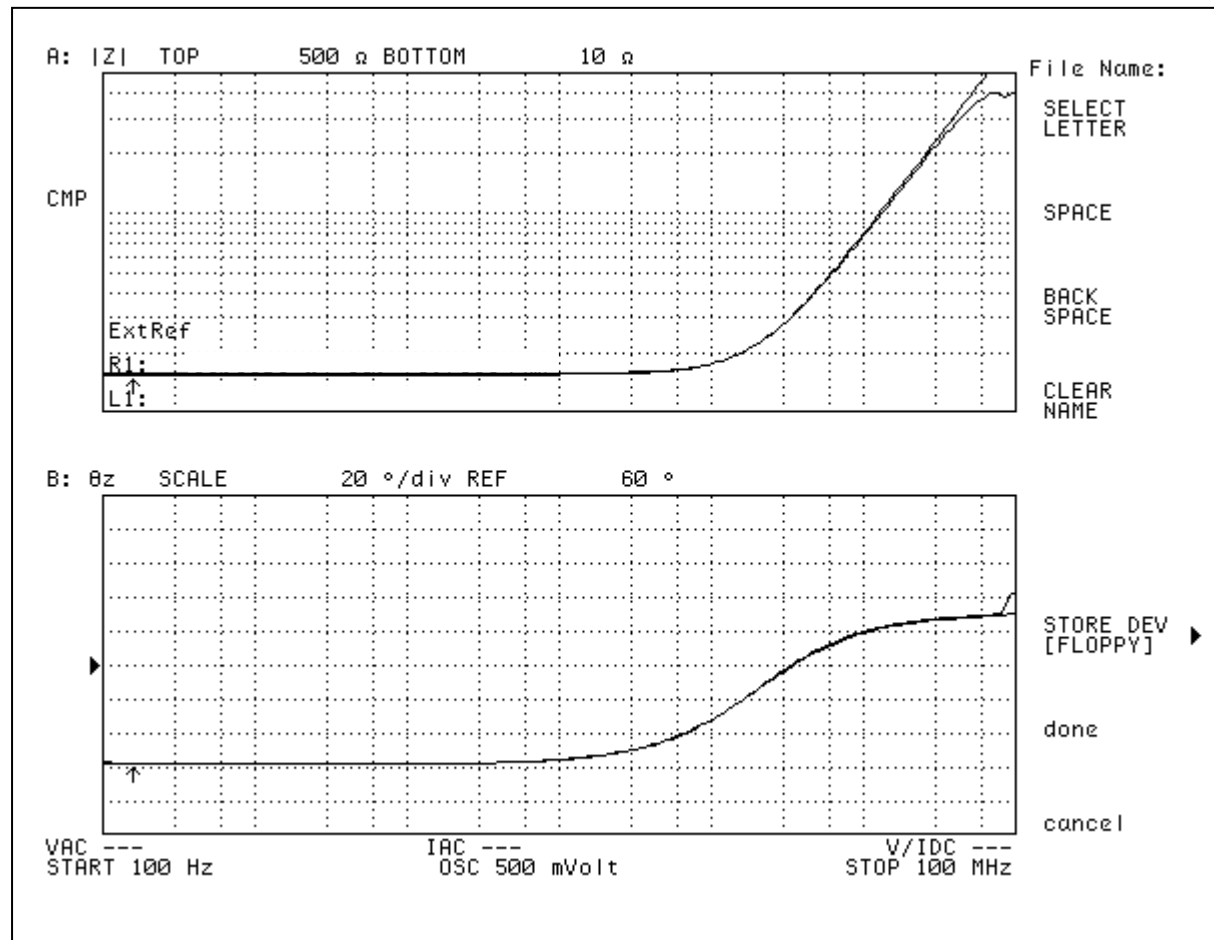
Optimization of Simulation

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

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

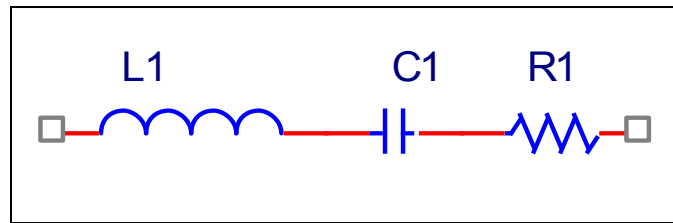
Attention

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



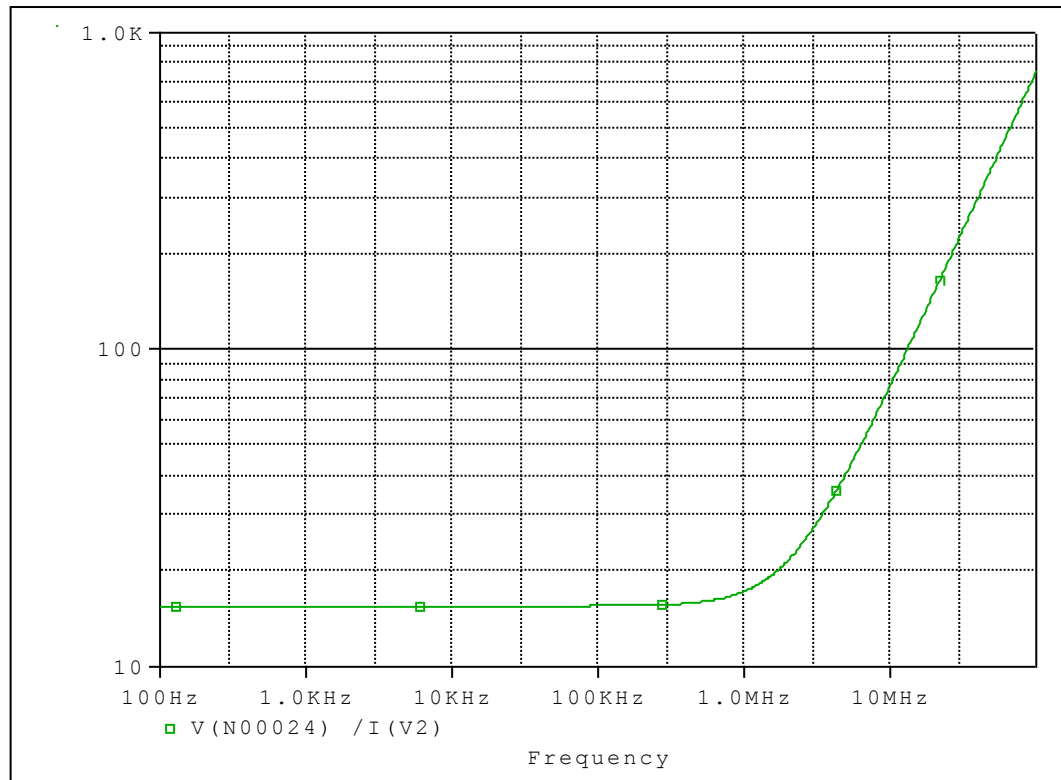
Measurement		
R1		
L1		
C1		

Equivalent circuit

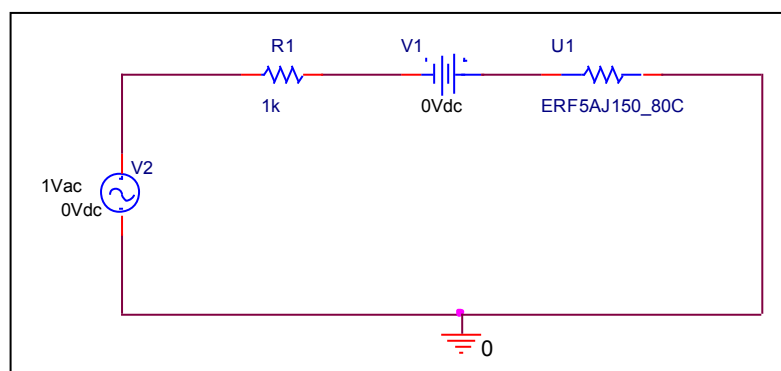


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	15.366	15.563	1.284
1K	15.376	15.561	1.206
10K	15.380	15.561	1.175
100K	15.408	15.579	1.107
1M	17.466	17.302	0.938
10M	76.746	77.219	0.616