

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ150
THERMAL: TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

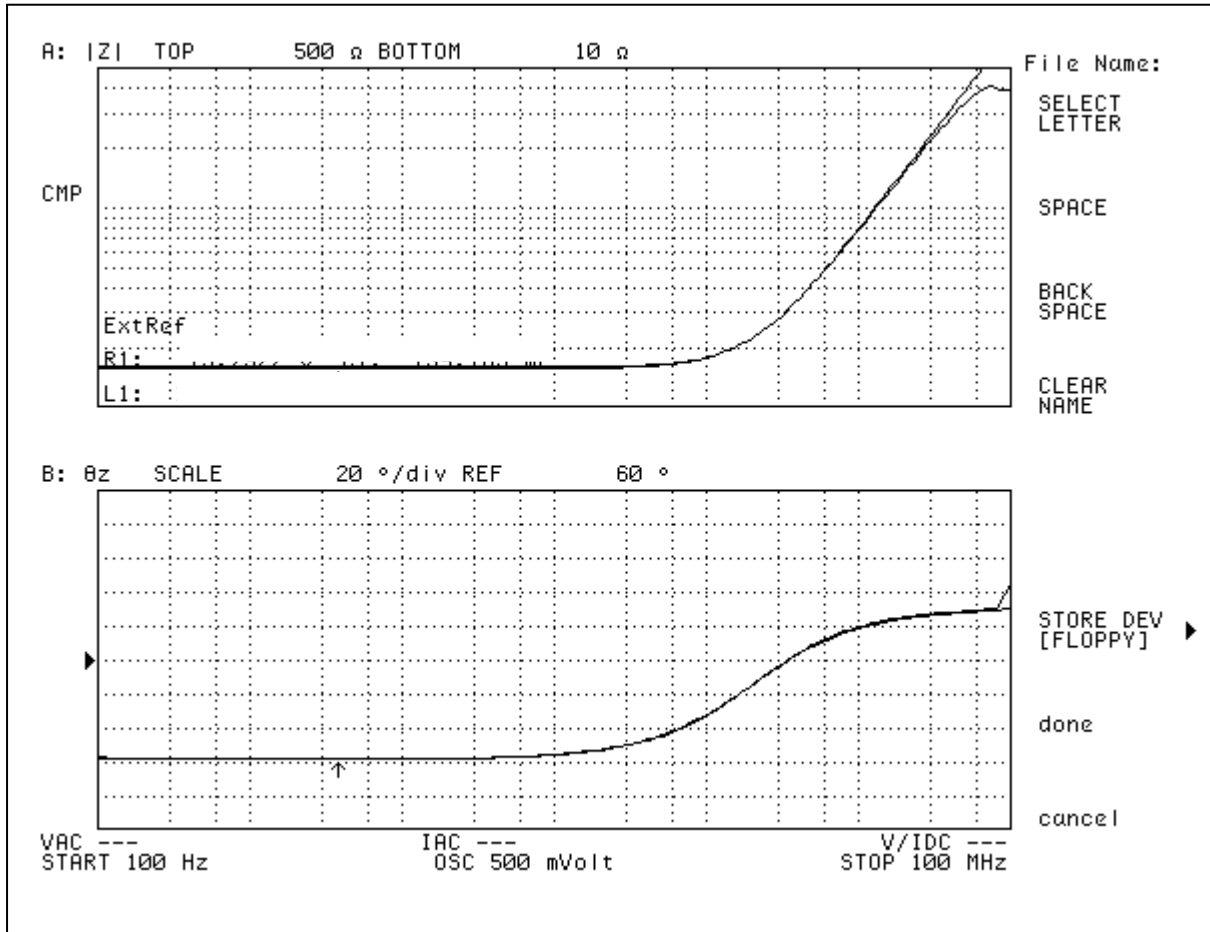
Optimization of Simulation

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

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

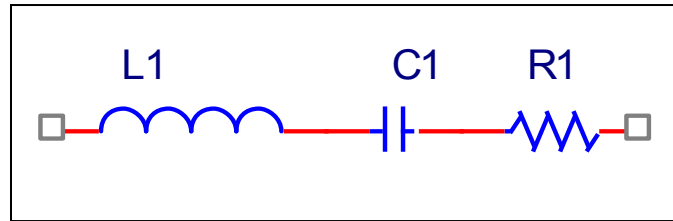
Attention

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



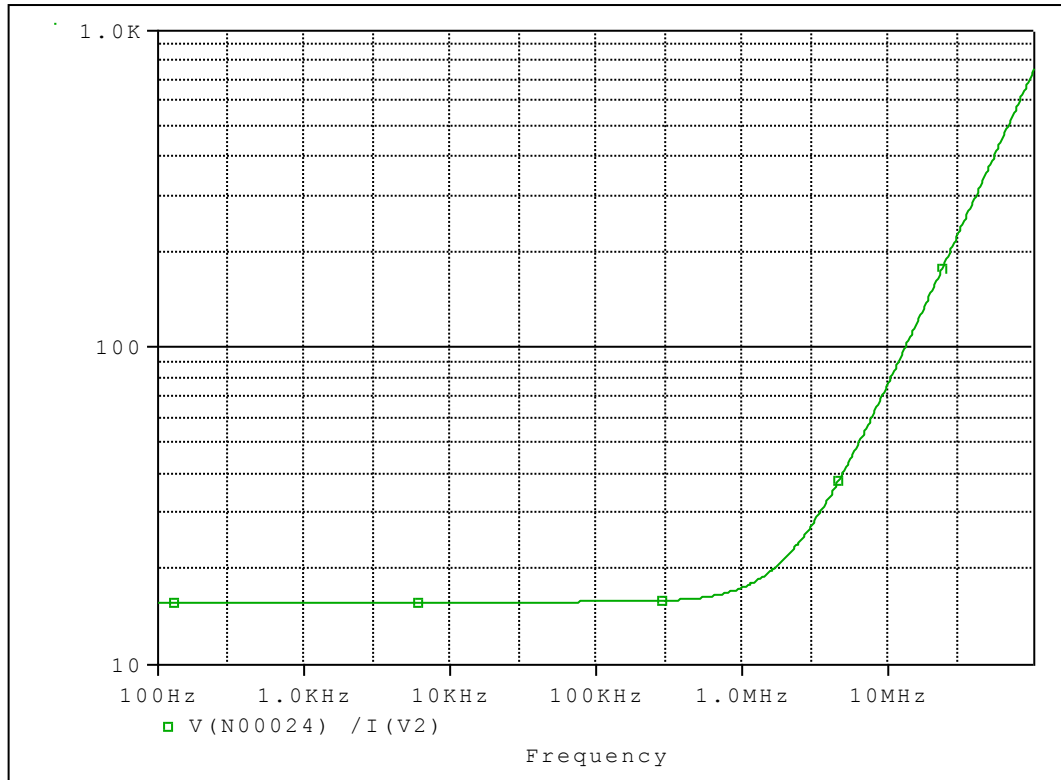
Measurement		
R1		
L1		
C1		

Equivalent circuit

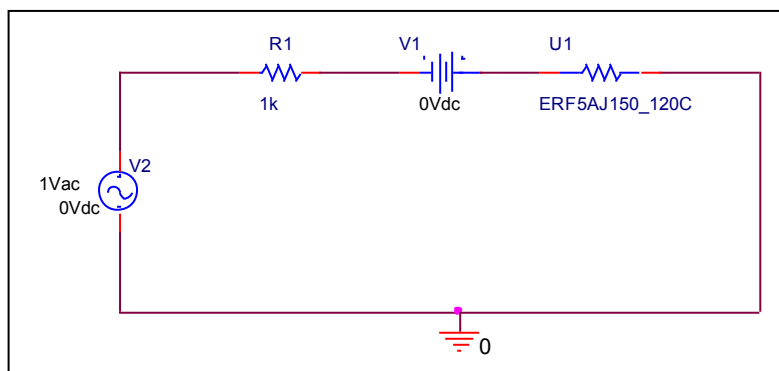


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	15.526	15.792	1.714
1K	15.520	15.792	1.750
10K	15.524	15.792	1.725
100K	15.550	15.810	1.669
1M	17.624	17.510	0.646
10M	77.372	77.259	0.145