

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AKR47
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

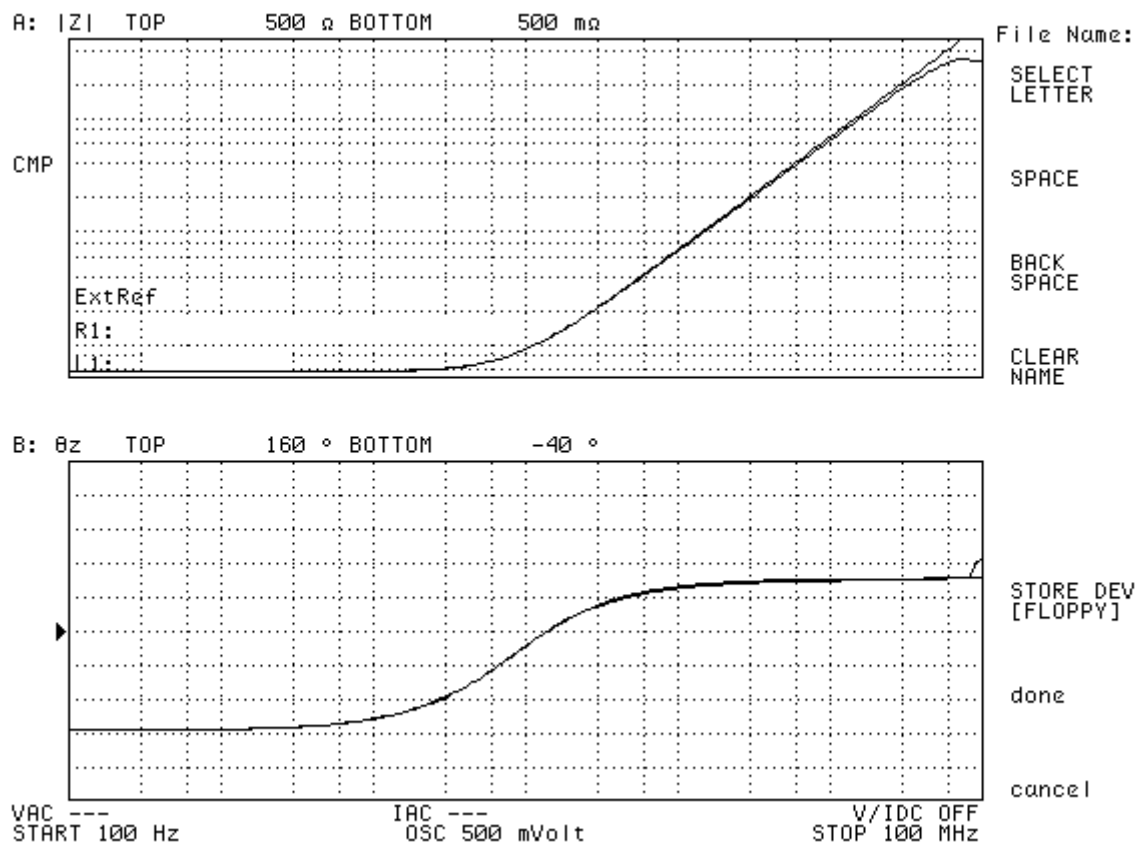
Optimization of Simulation

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

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

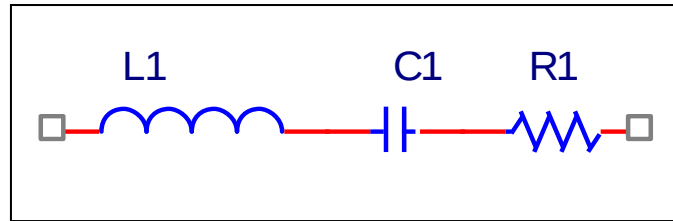
Attention

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



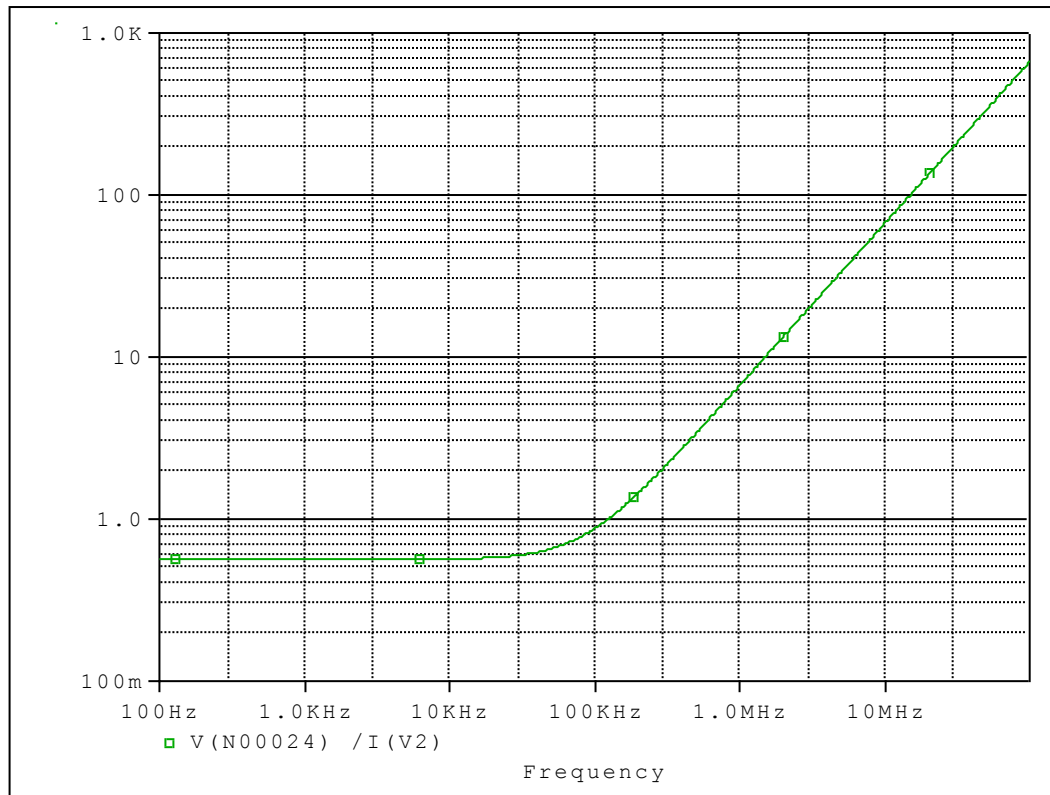
Measurement		
R1		
L1		
C1		

Equivalent circuit

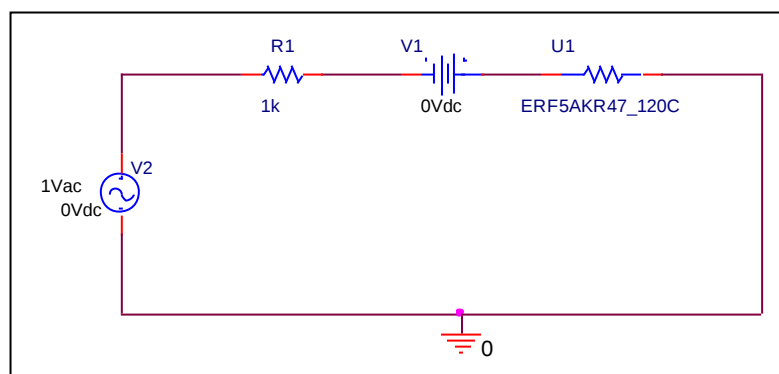


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	559.263	564.030	0.852
1K	558.579	563.517	0.884
10K	567.842	567.395	0.079
100K	874.176	872.404	0.203
1M	6.790	6.684	1.564
10M	63.881	66.605	4.264