

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AKR22
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

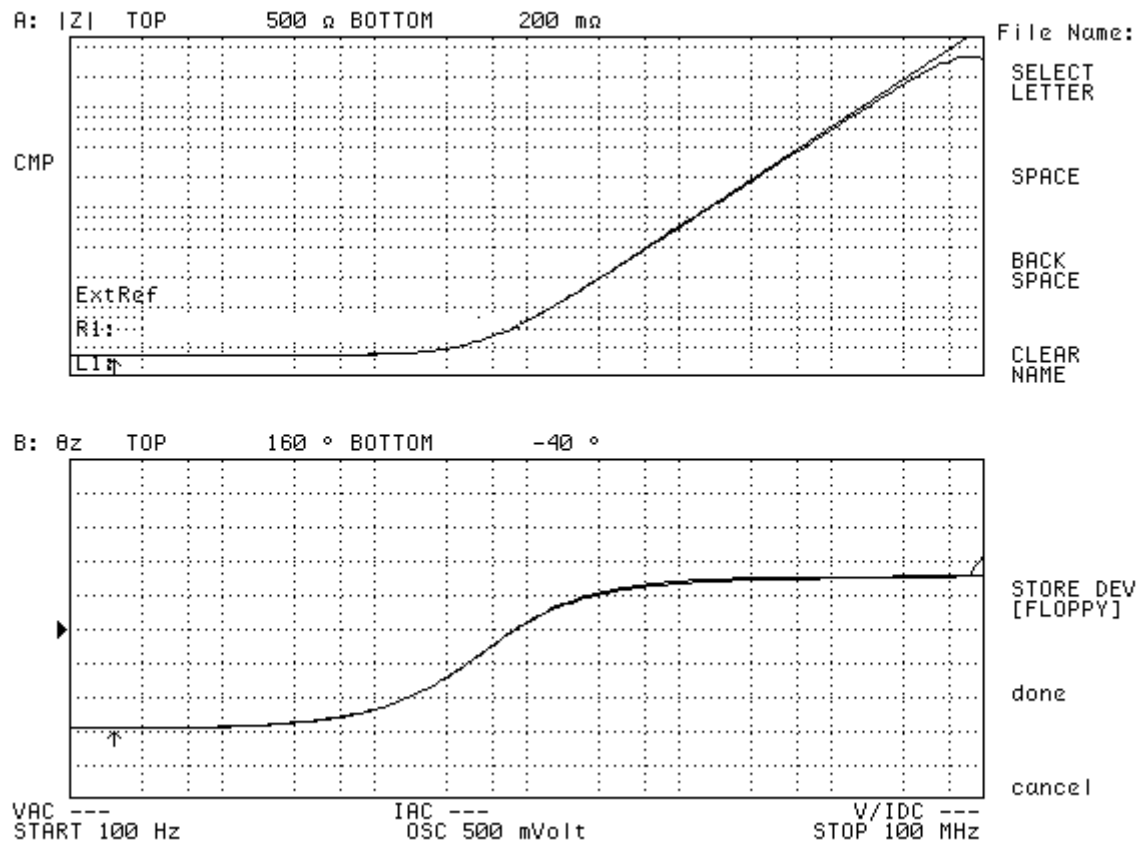
Optimization of Simulation

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

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

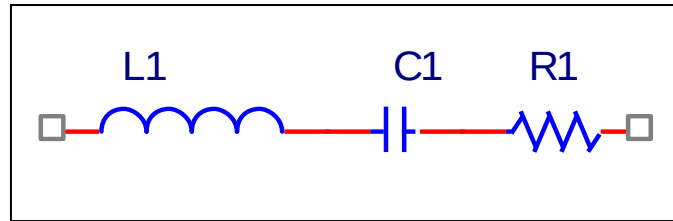
Attention

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



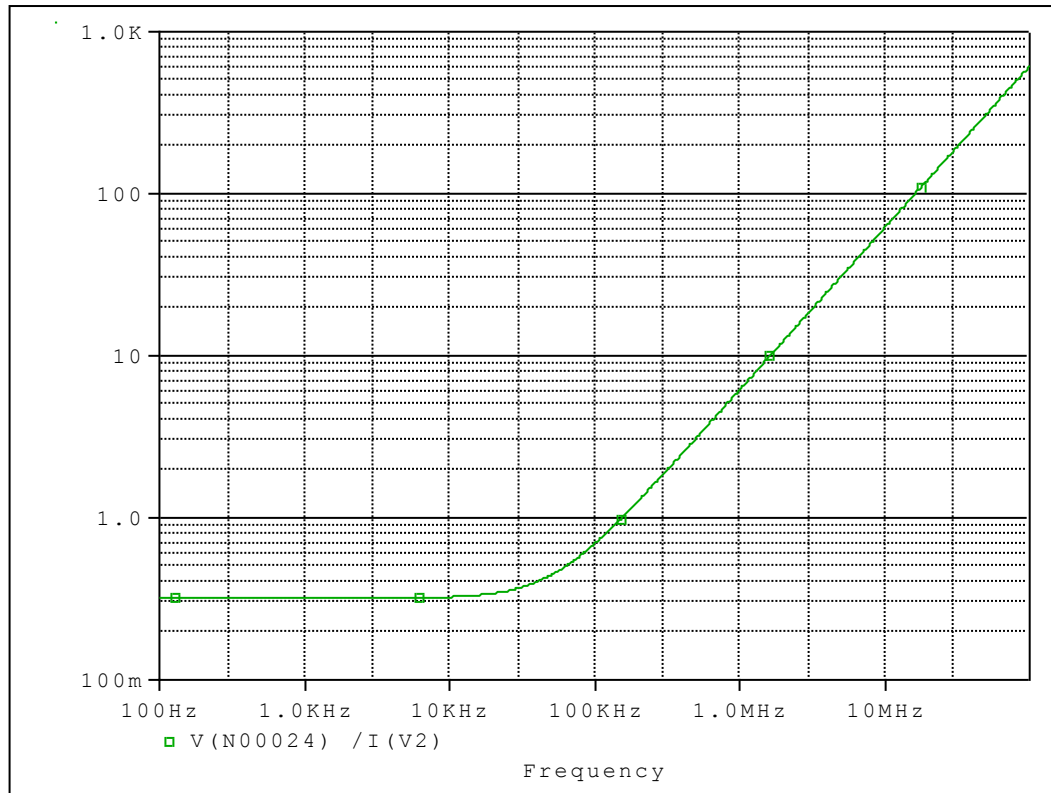
Measurement		
R1		
L1		
C1		

Equivalent circuit

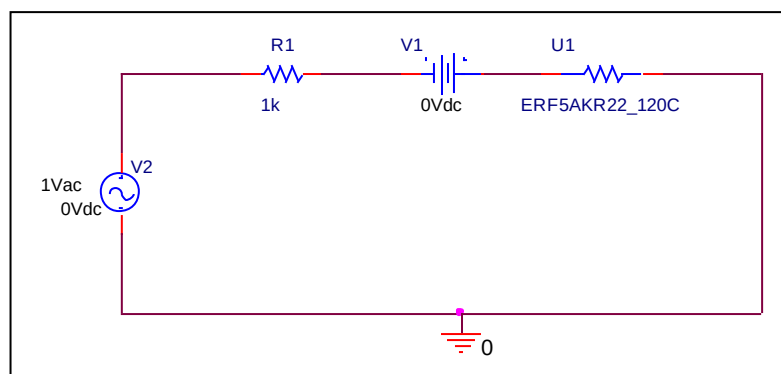


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	321.312	318.797	0.783
1K	321.053	318.856	0.684
10K	328.565	324.682	1.182
100K	692.574	693.247	0.097
1M	6.229	6.162	1.070
10M	58.782	61.538	4.689