

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ431
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

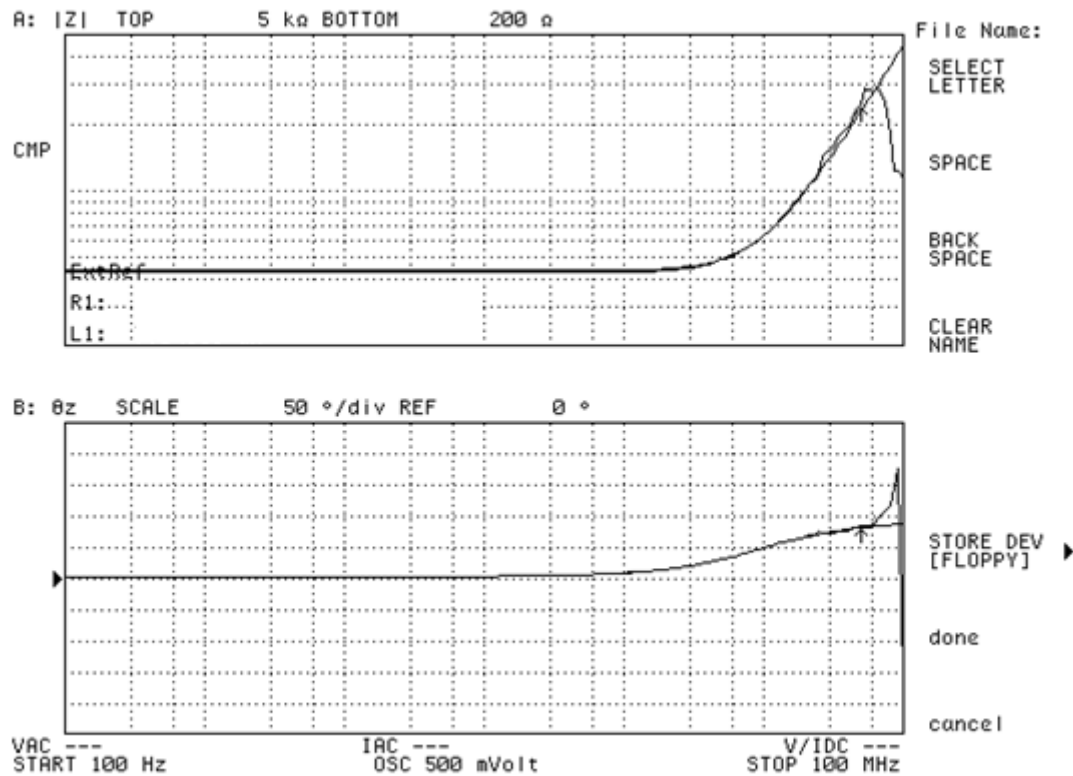
Optimization of Simulation

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

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

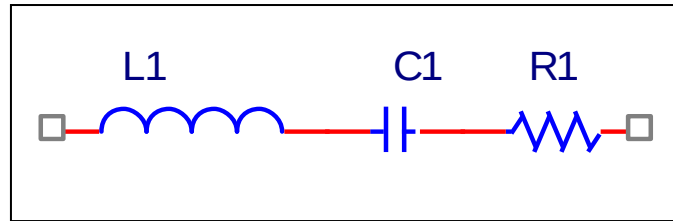
Attention

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



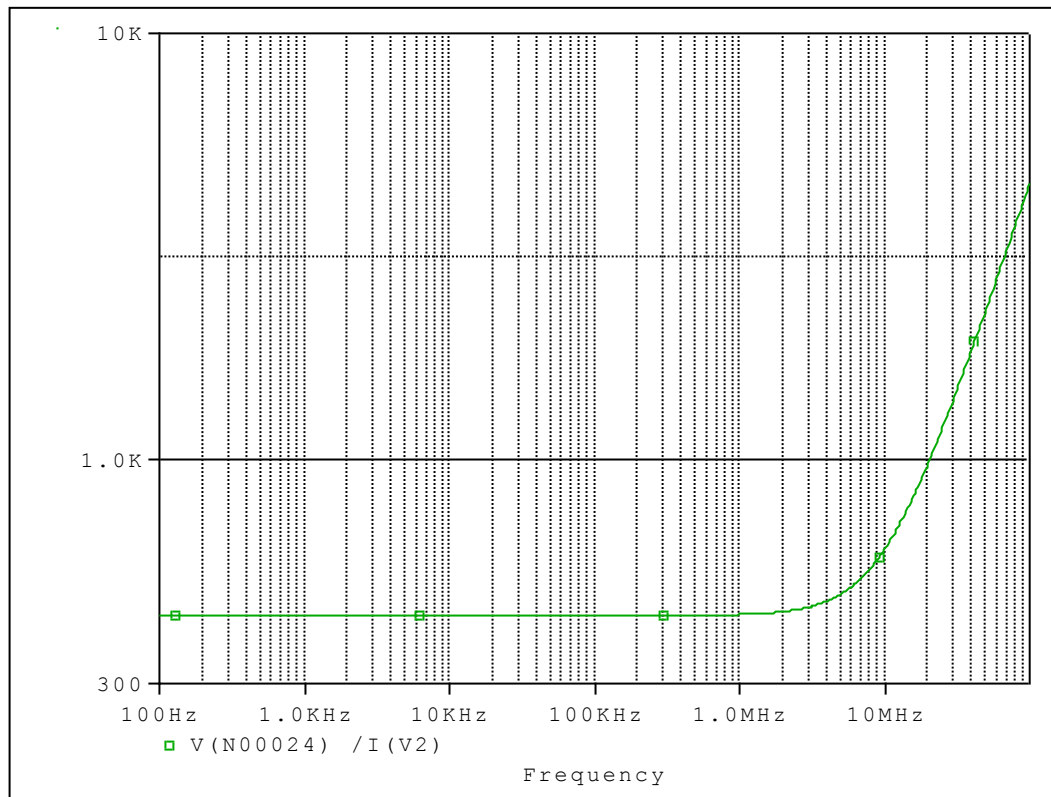
Measurement		
R1		
L1		
C1		

Equivalent circuit

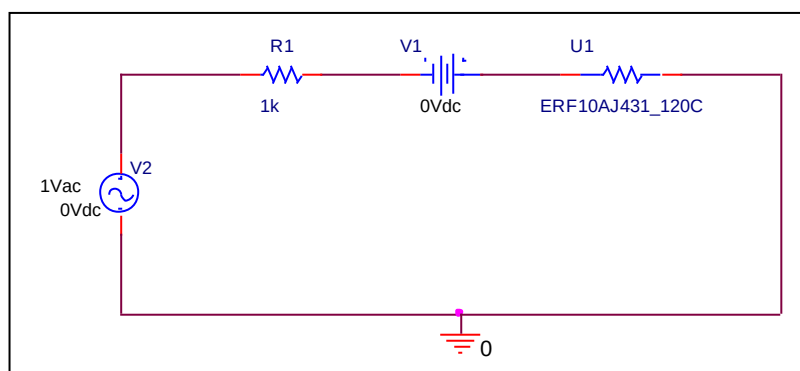


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	425.509	433.163	1.799
1K	425.462	433.083	1.791
10K	425.678	433.082	1.739
100K	425.484	433.105	1.791
1M	428.271	435.337	1.650
10M	626.739	619.201	1.203