

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ331
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

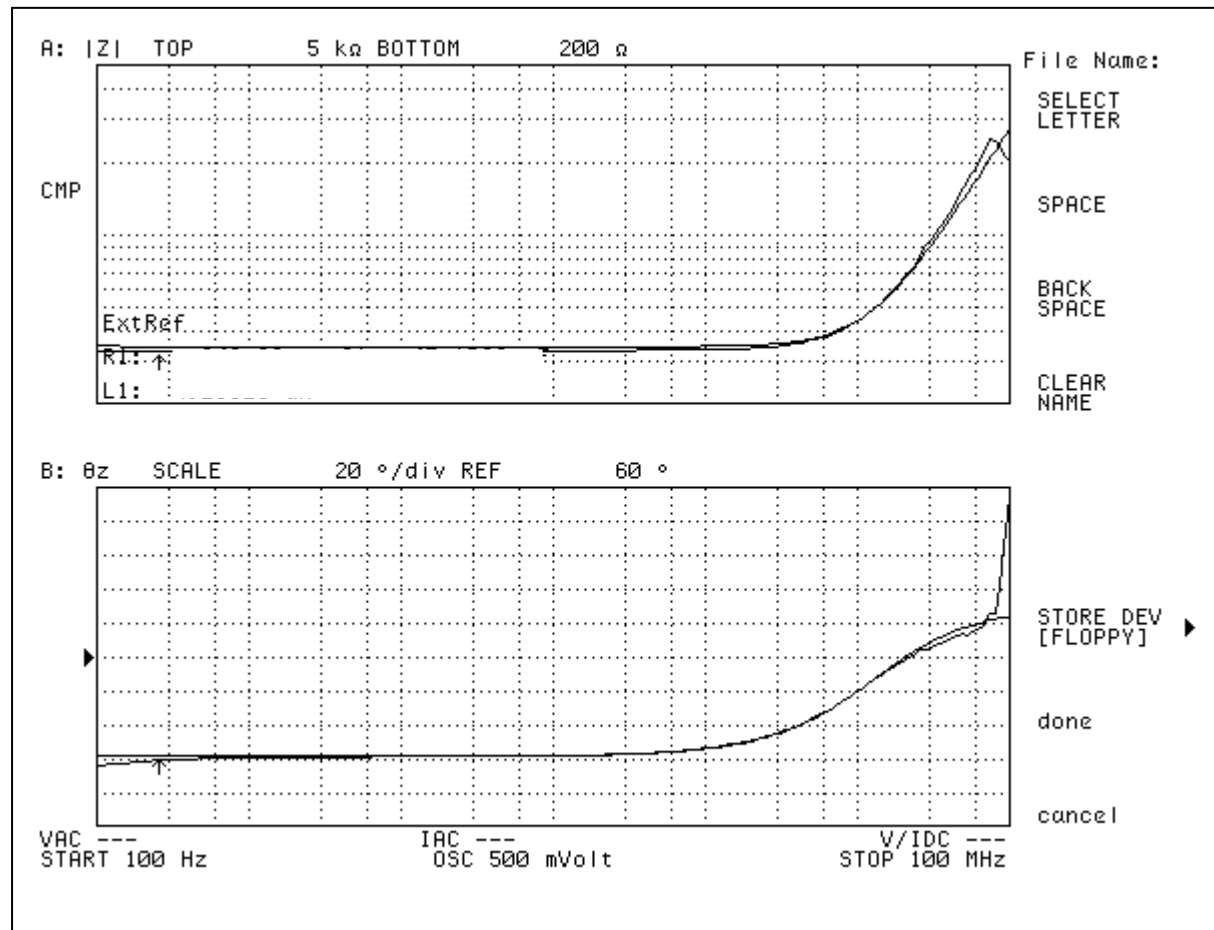
Optimization of Simulation

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

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

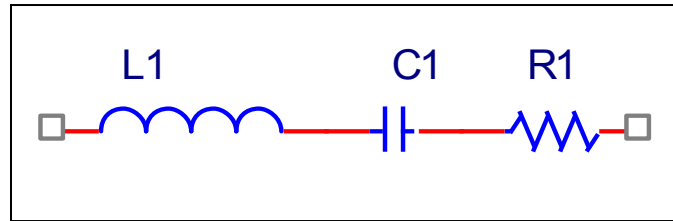
Attention

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



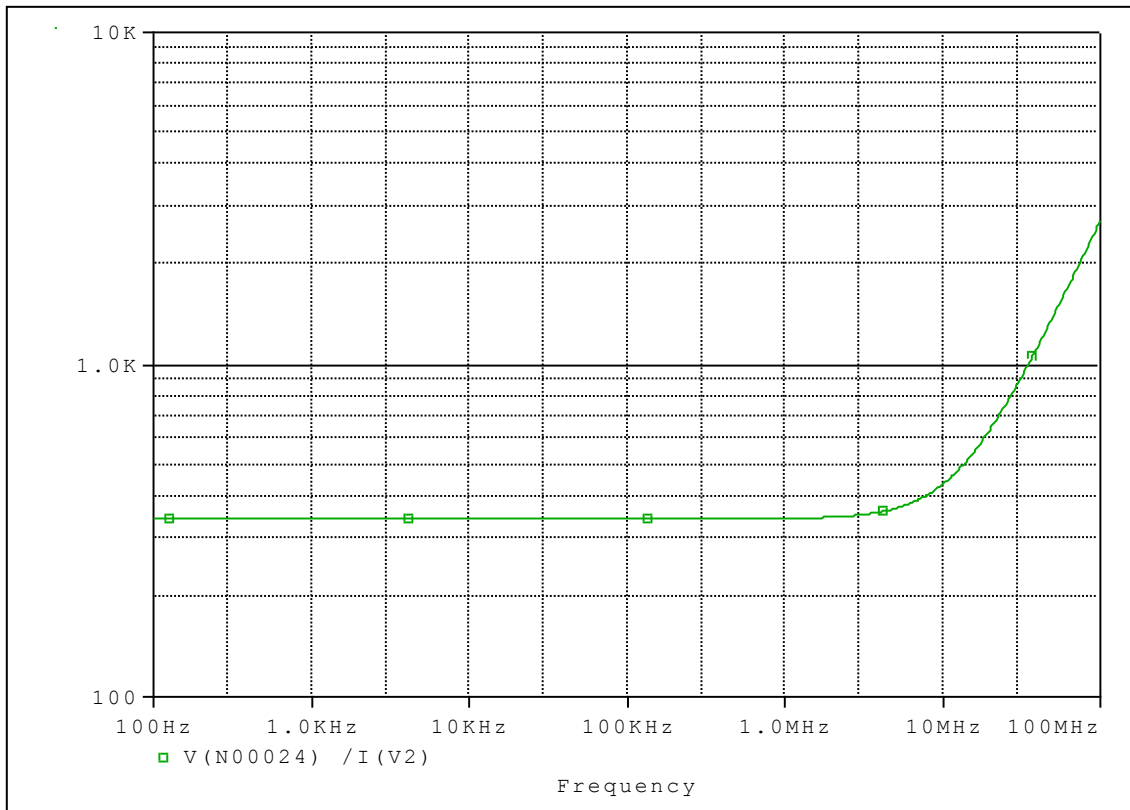
Measurement		
R1		
L1		
C1		

Equivalent circuit

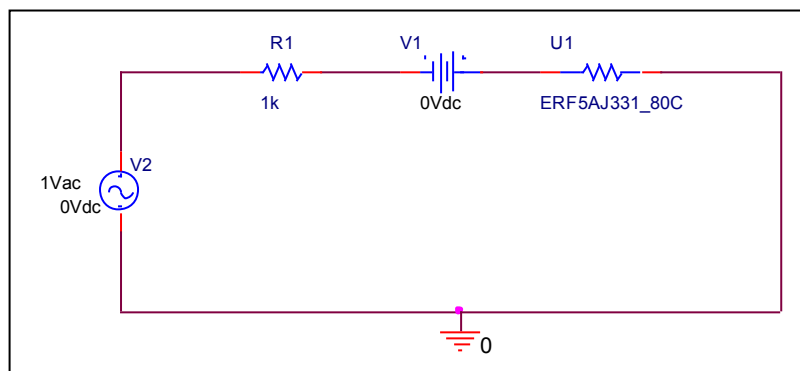


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	345.599	345.099	0.145
1K	343.008	343.308	0.087
10K	343.590	343.290	0.087
100K	343.500	343.300	0.058
1M	344.746	344.346	0.116
10M	436.539	436.439	0.023