

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ271
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

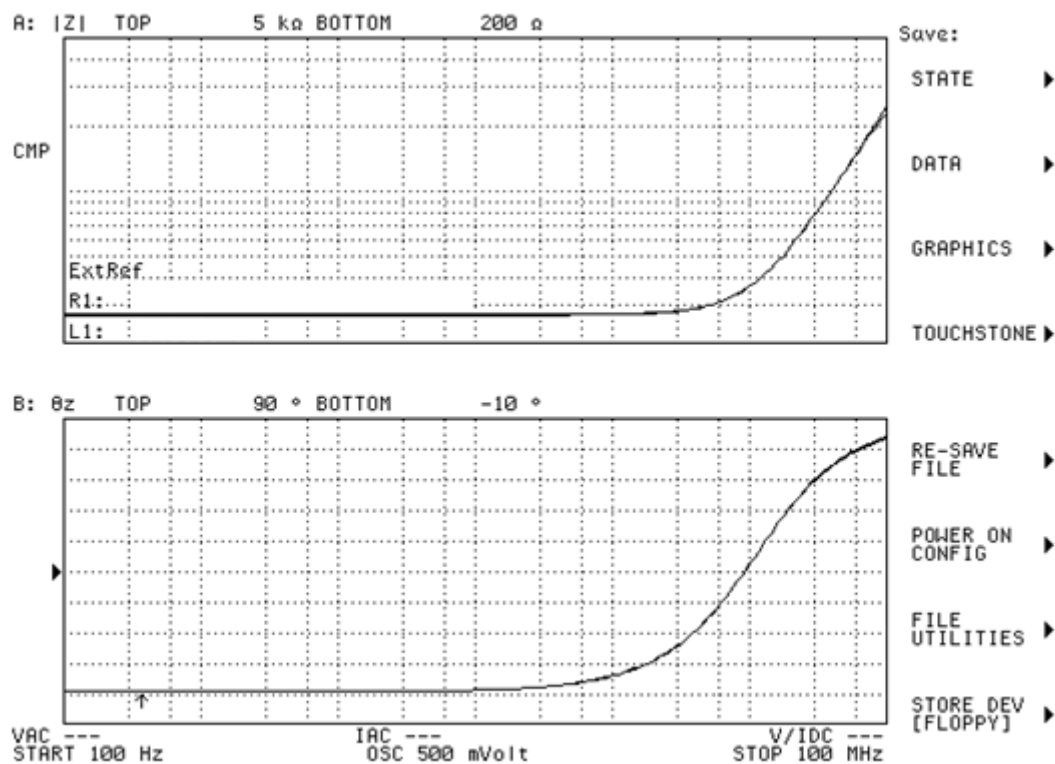
Optimization of Simulation

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)



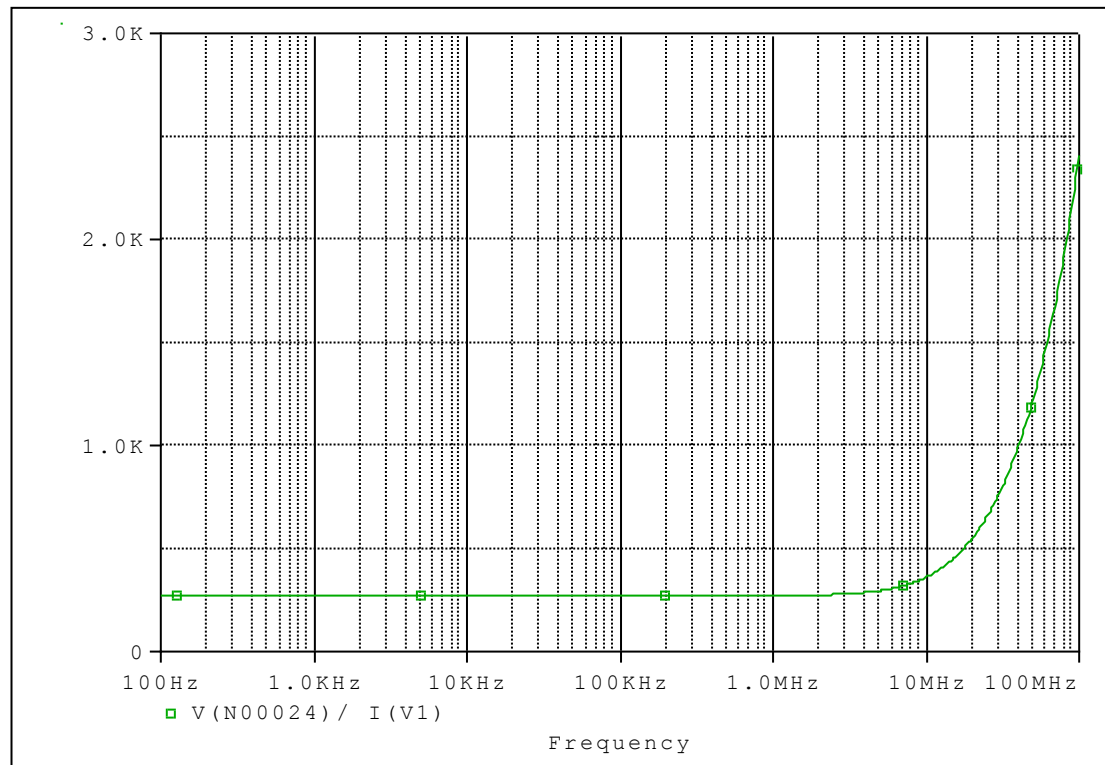
Measurement		
R1		
L1		
C1		

Equivalent circuit

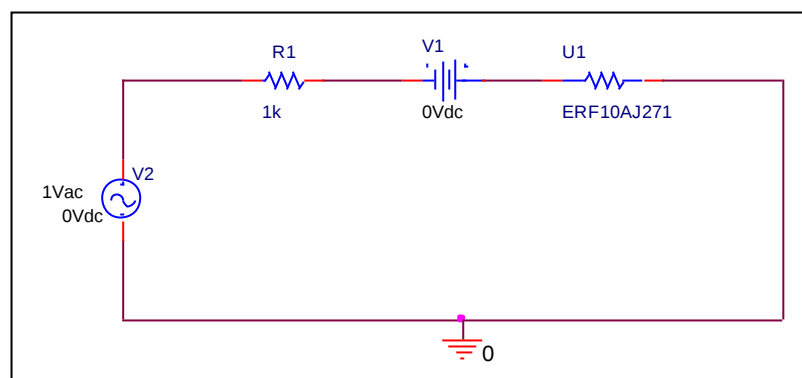


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	268.356	270.540	0.814
1K	268.415	270.540	0.792
10K	268.374	270.540	0.807
100K	268.340	270.551	0.824
1M	269.651	271.593	0.720
10M	360.981	360.908	0.020
100M	2.257	2.404	6.537