

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AK5R1
THERMAL: TA=150 (degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

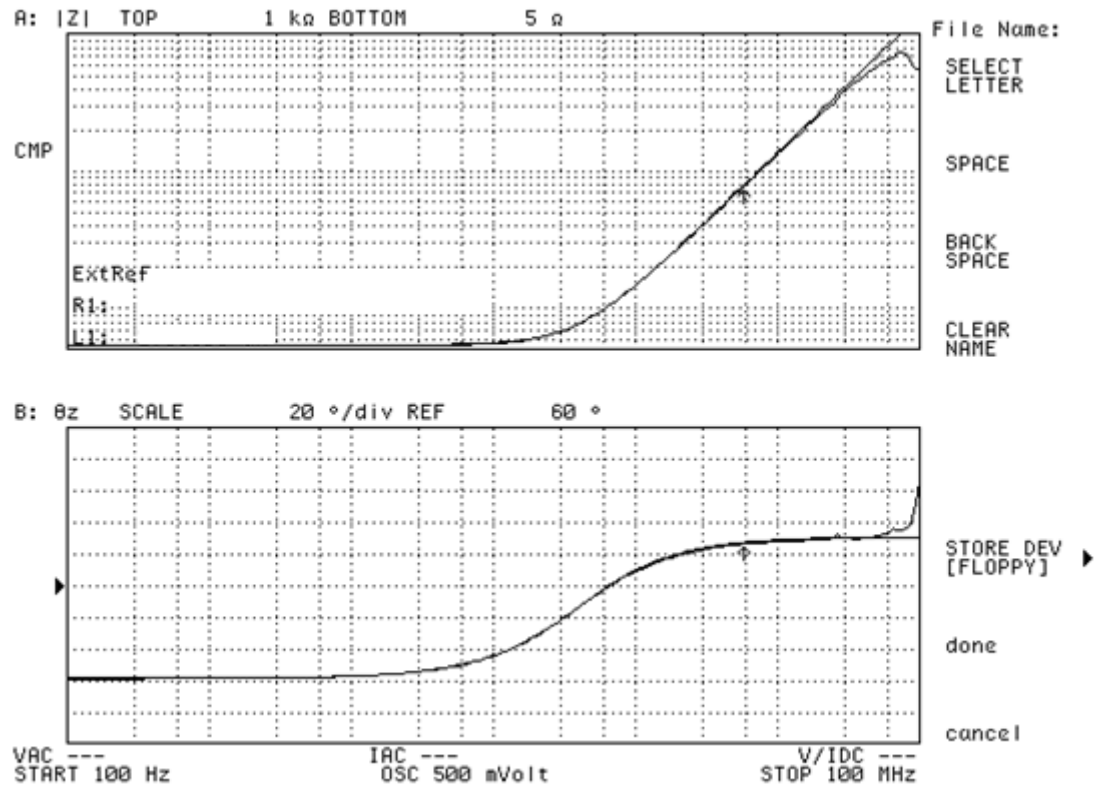
Optimization of Simulation

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)



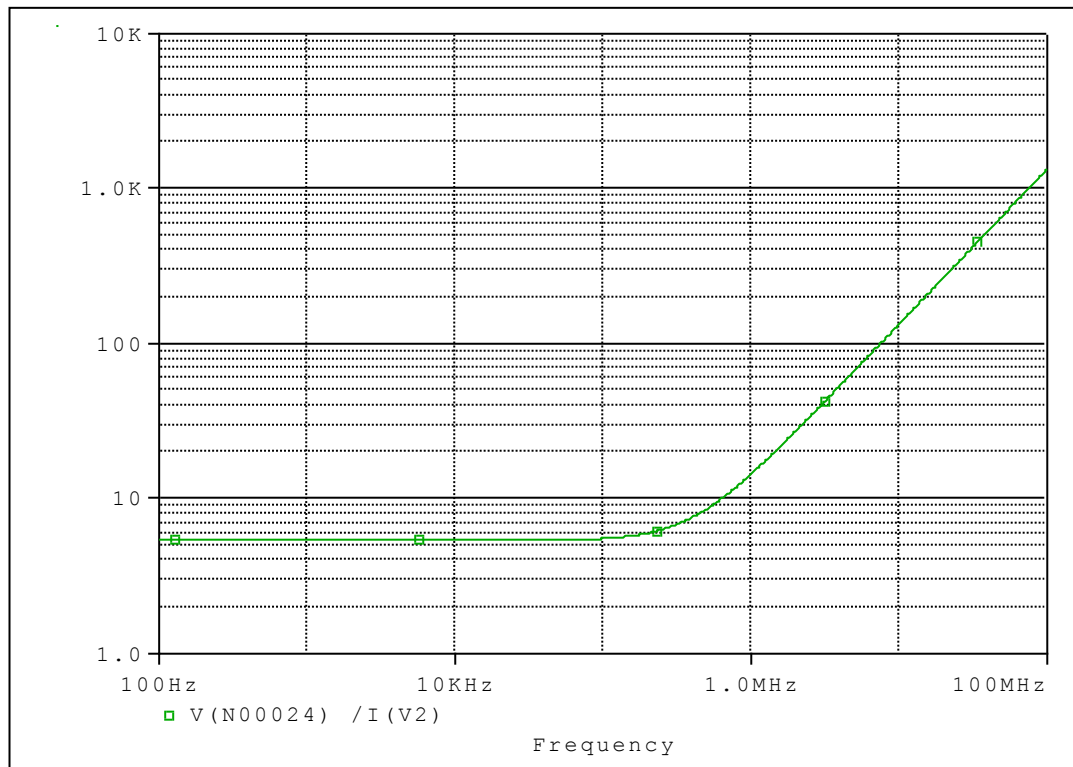
Measurement		
R1		
L1		
C1		

Equivalent circuit

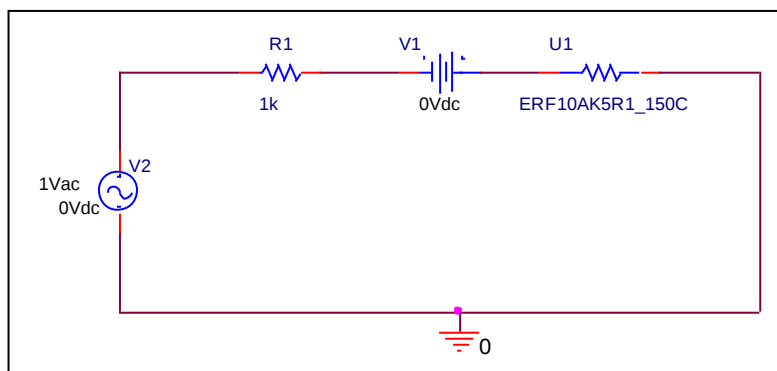


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	5.297	5.365	1.284
1K	5.300	5.365	1.225
10K	5.298	5.367	1.293
100K	5.477	5.530	0.968
1M	14.955	14.448	3.390
10M	132.699	134.254	1.172