

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AK3R0
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

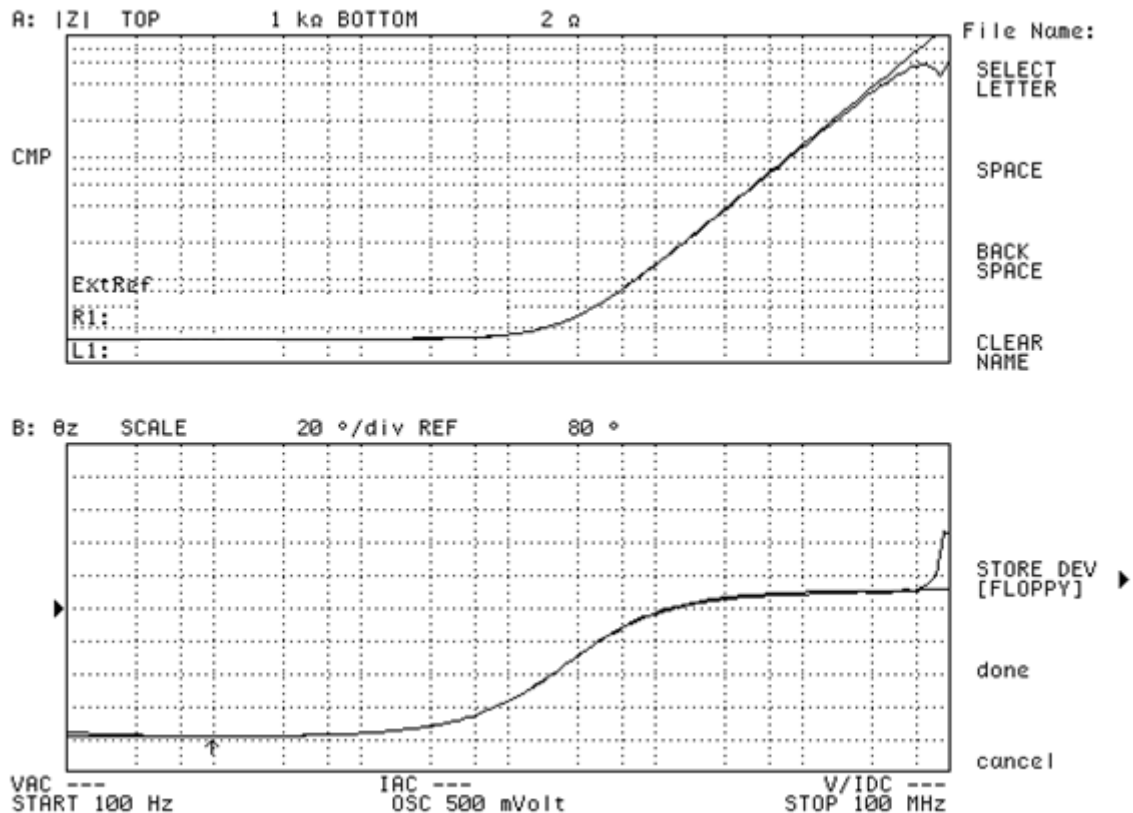
Optimization of Simulation

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)



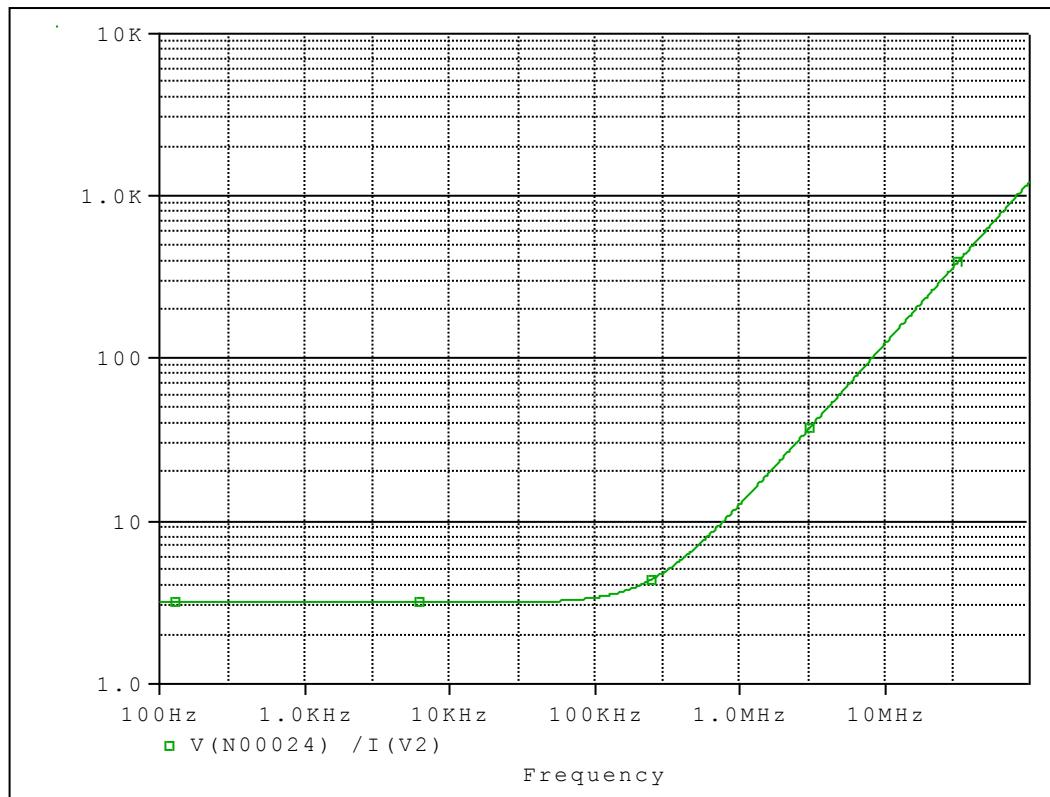
Measurement		
R1		
L1		
C1		

Equivalent circuit

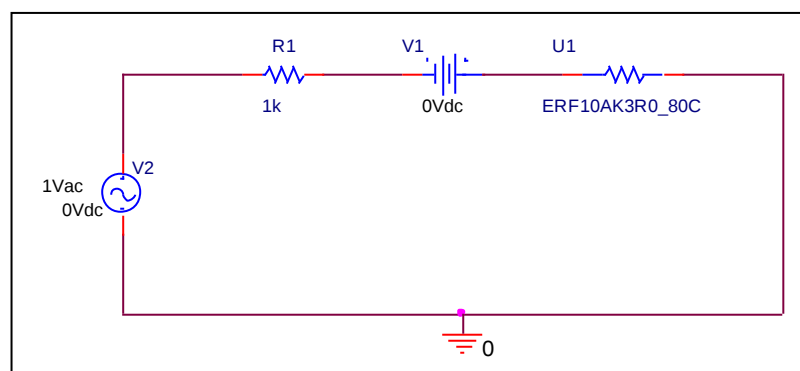


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	3.134	3.162	0.906
1K	3.135	3.162	0.867
10K	3.138	3.165	0.835
100K	3.378	3.393	0.463
1M	13.134	12.706	3.256
10M	120.354	123.105	2.286