

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AKR33
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

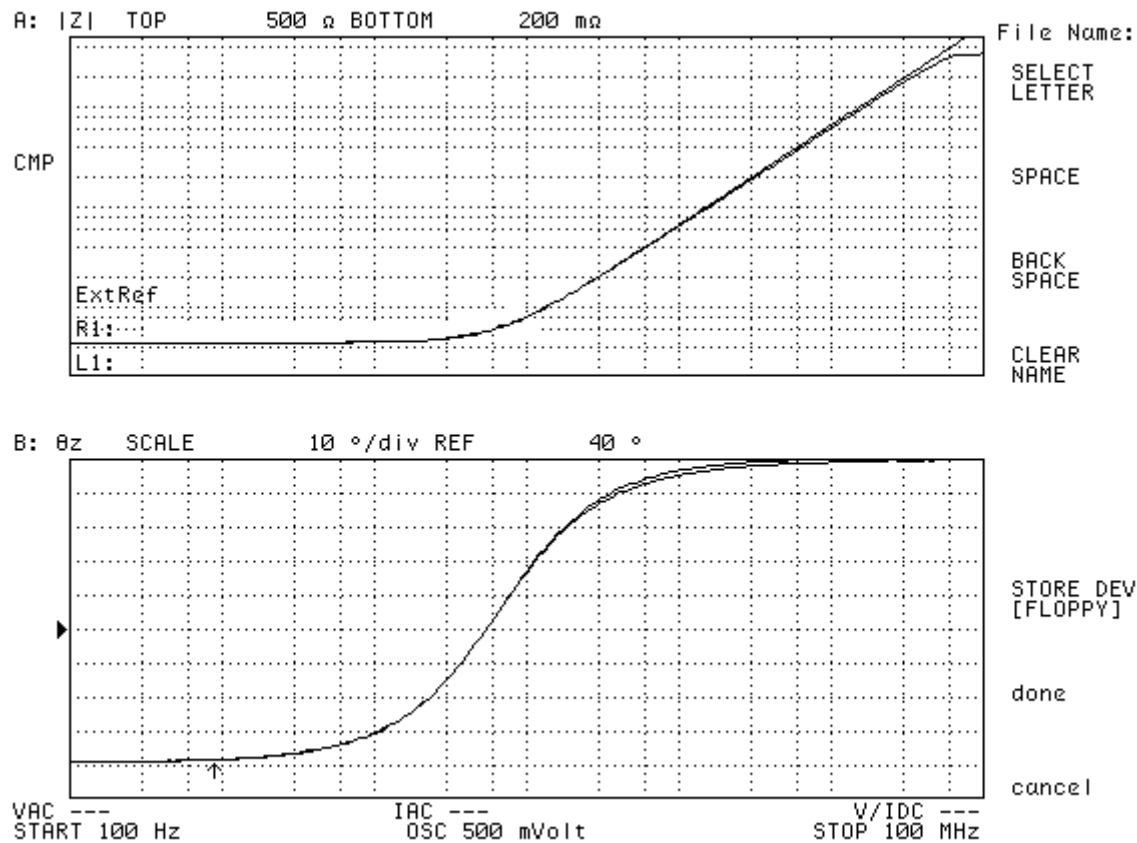
Optimization of Simulation

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)



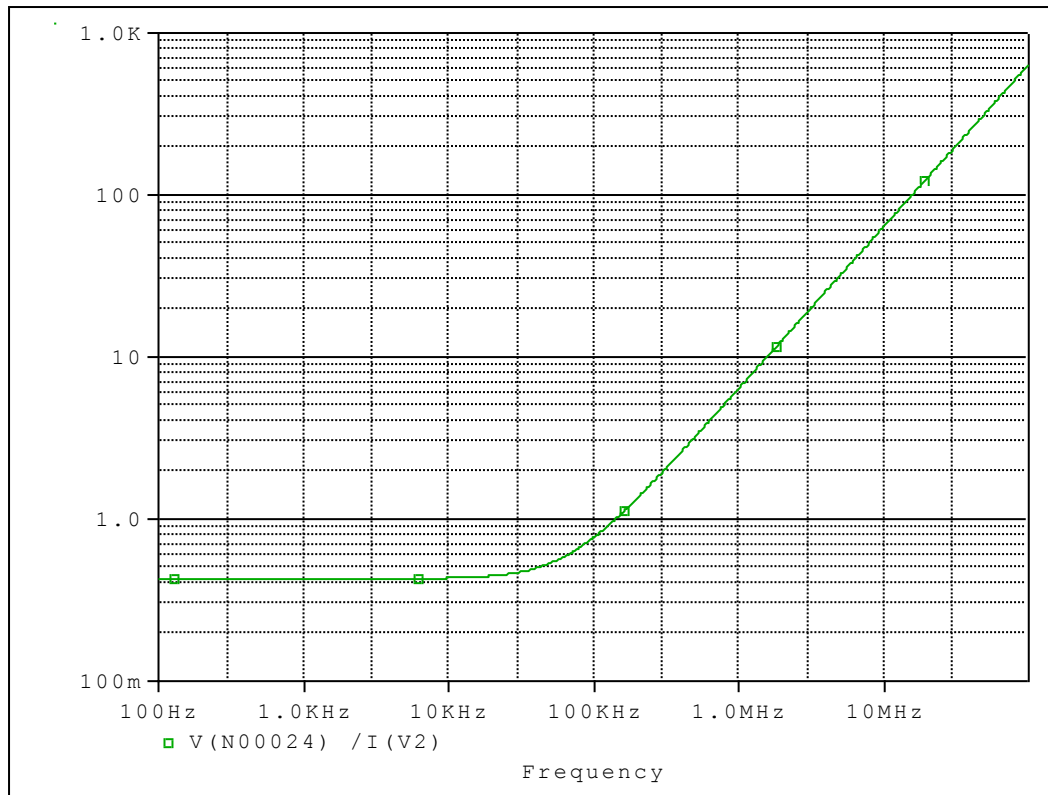
Measurement		
R1		
L1		
C1		

Equivalent circuit

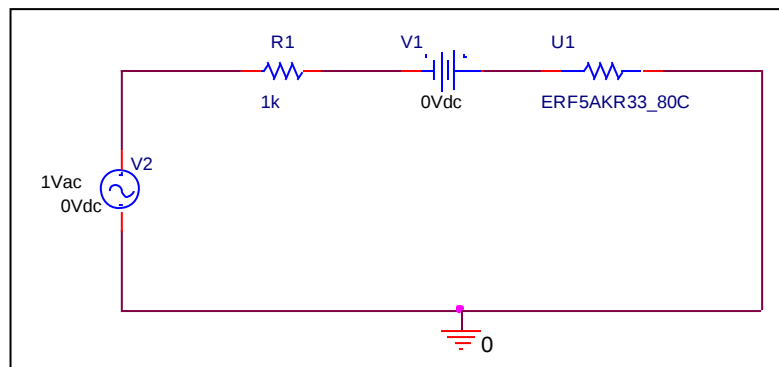


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	426.129	428.859	0.641
1K	426.702	428.033	0.312
10K	432.793	432.672	0.028
100K	768.804	768.004	0.104
1M	6.485	6.392	1.444
10M	61.067	63.774	4.433