

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ391
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

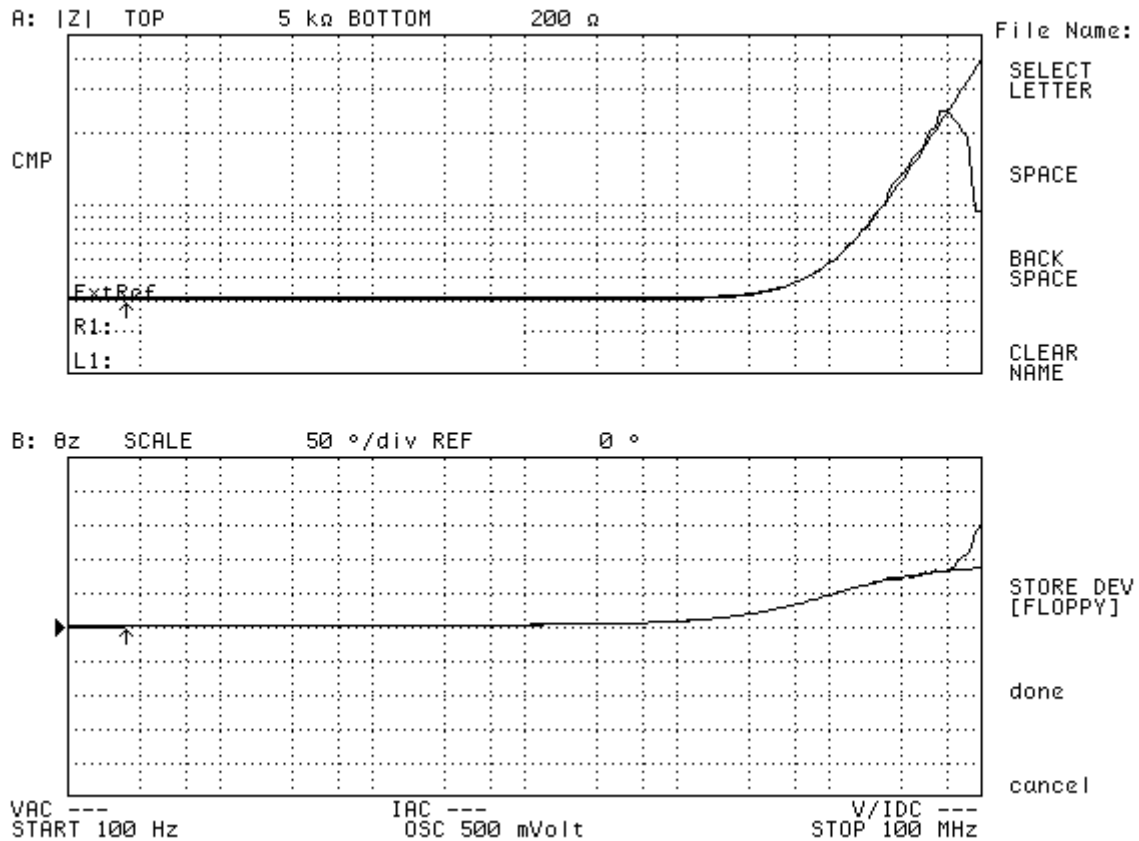
Optimization of Simulation

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

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

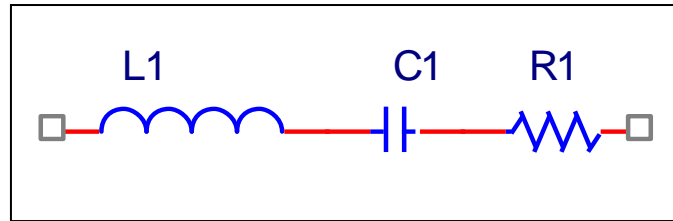
Attention

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



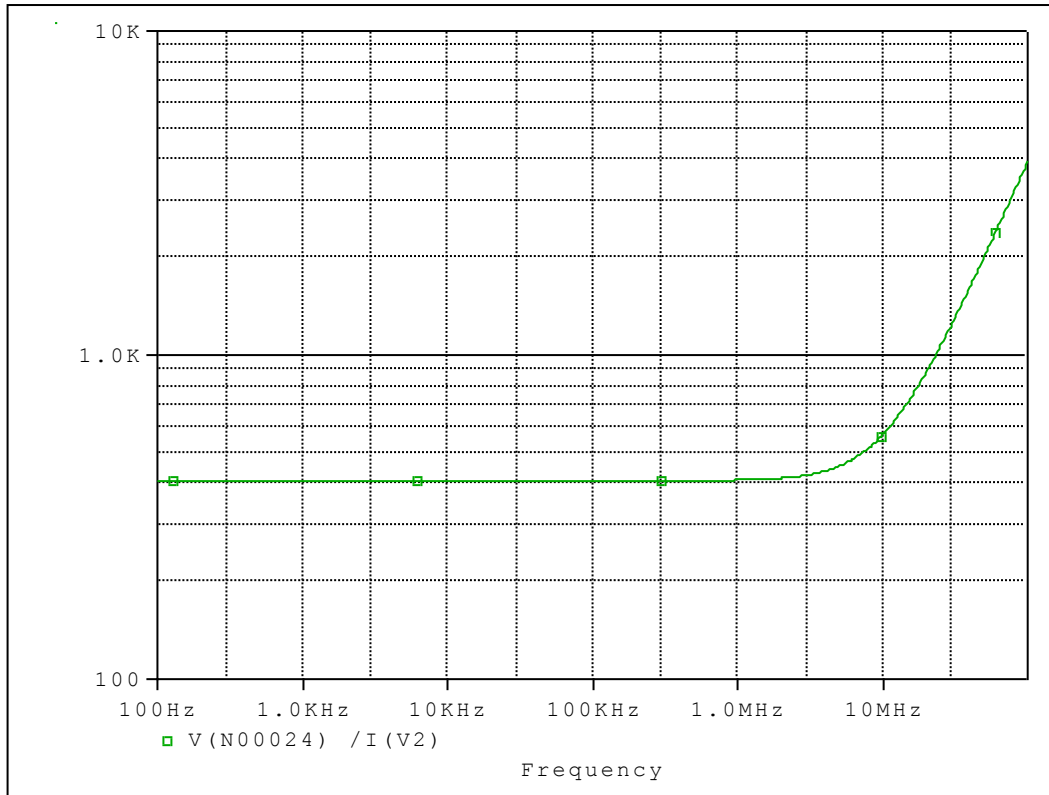
Measurement		
R1		
L1		
C1		

Equivalent circuit

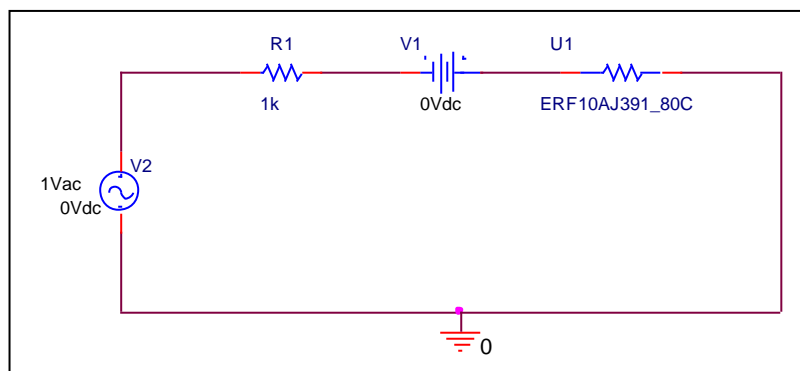


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	403.909	411.306	1.831
1K	403.912	409.678	1.428
10K	403.835	409.662	1.443
100K	404.007	409.680	1.404
1M	406.134	411.536	1.330
10M	574.126	567.214	1.204