

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ151
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

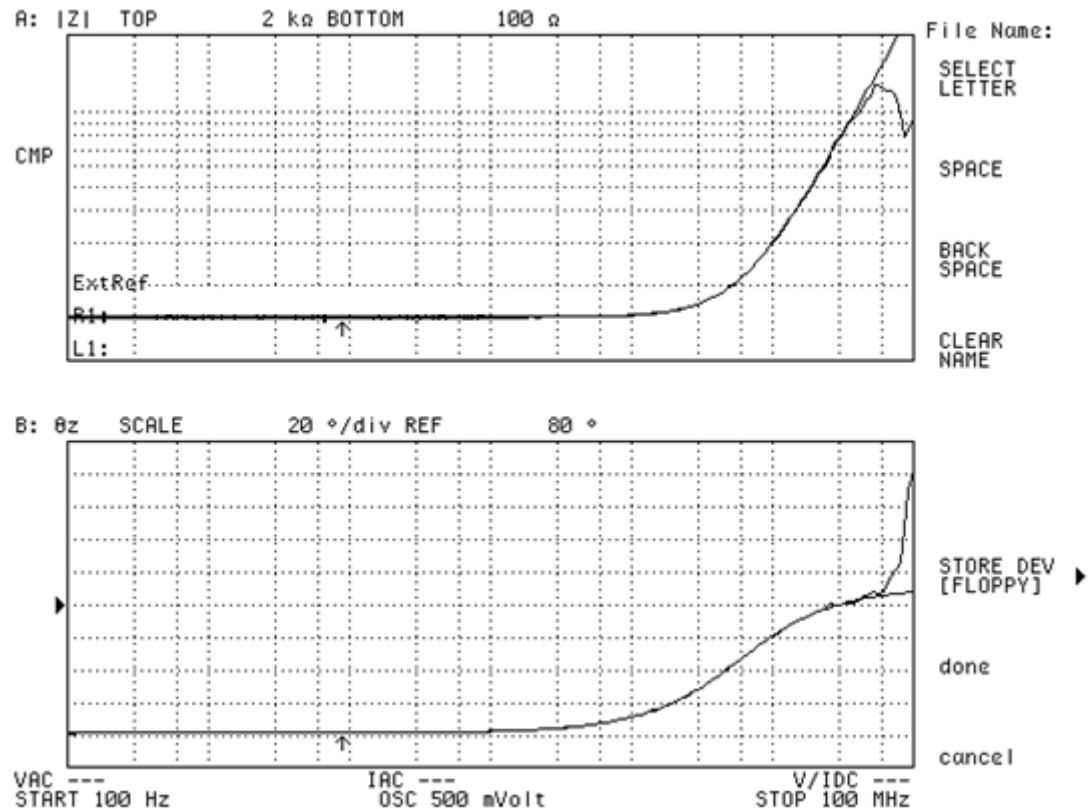
Optimization of Simulation

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

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

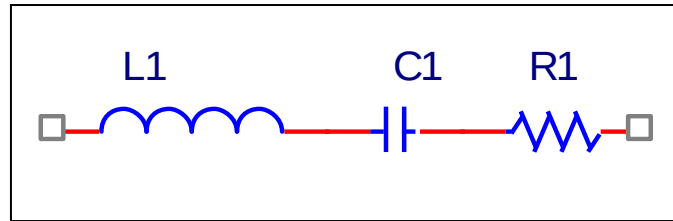
Attention

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



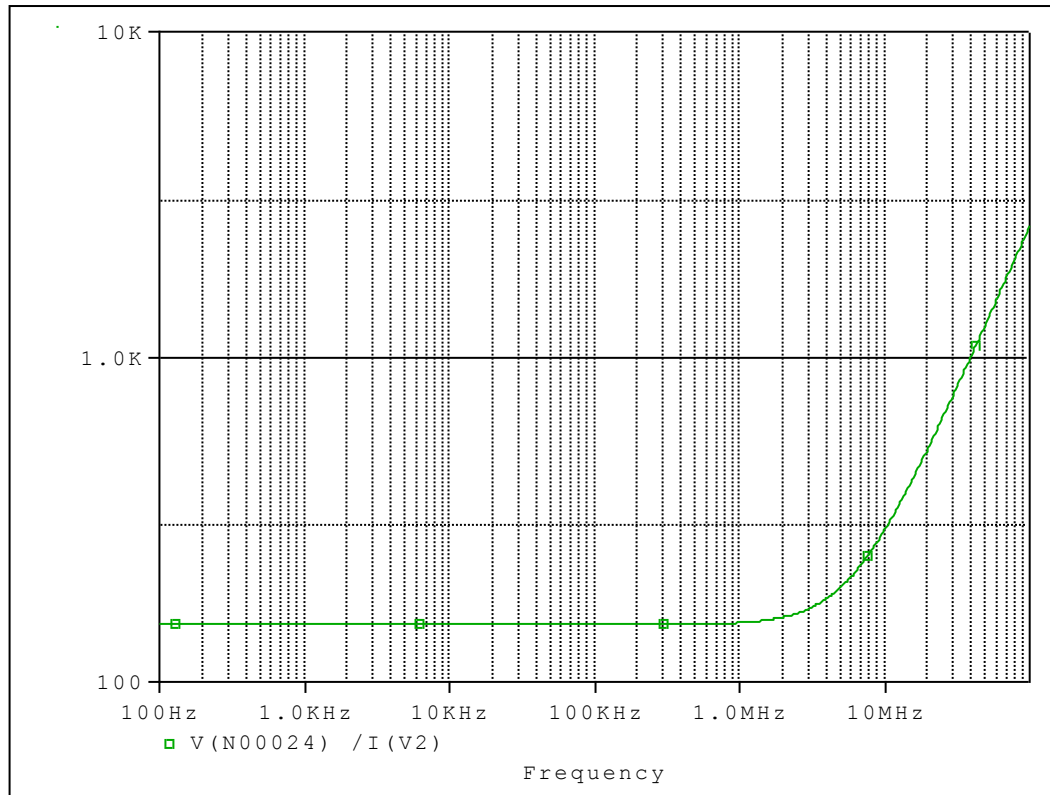
Measurement		
R1		
L1		
C1		

Equivalent circuit

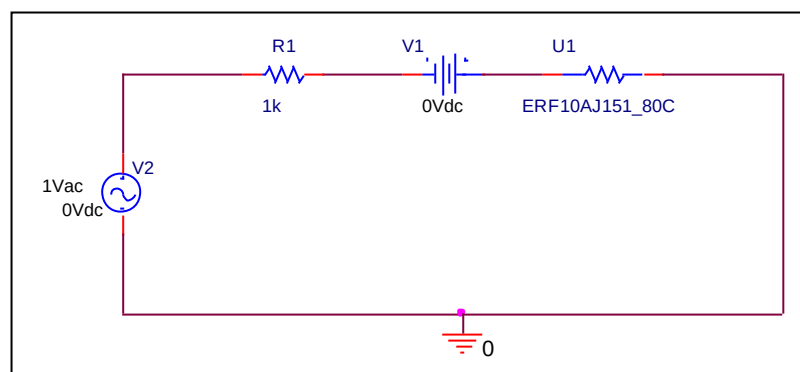


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	149.2391	150.012	0.518
1K	149.2614	150.011	0.502
10K	149.2512	150.011	0.509
100K	149.2508	150.032	0.523
1M	151.845	152.111	0.175
10M	297.4377	293.16	1.438