

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ151
THERMAL:TA=120(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

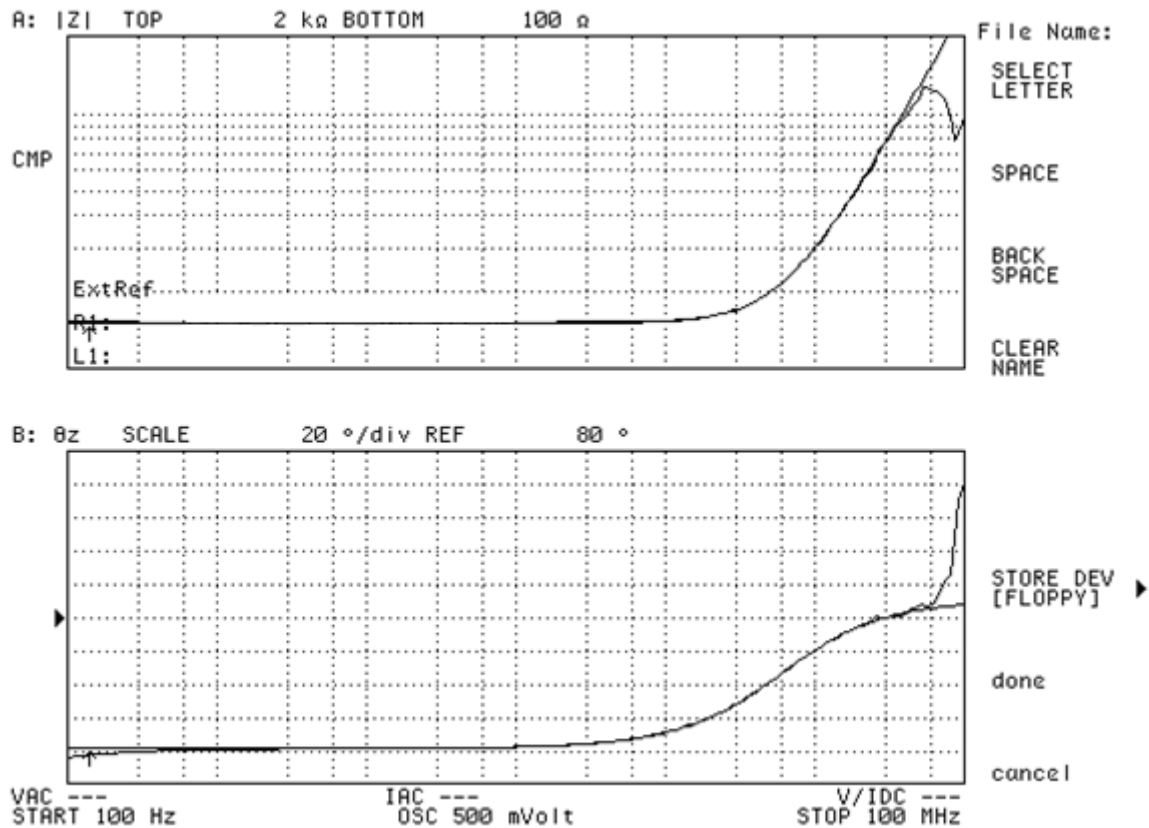
Optimization of Simulation

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

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

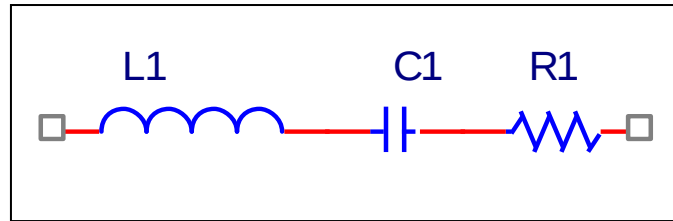
Attention

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



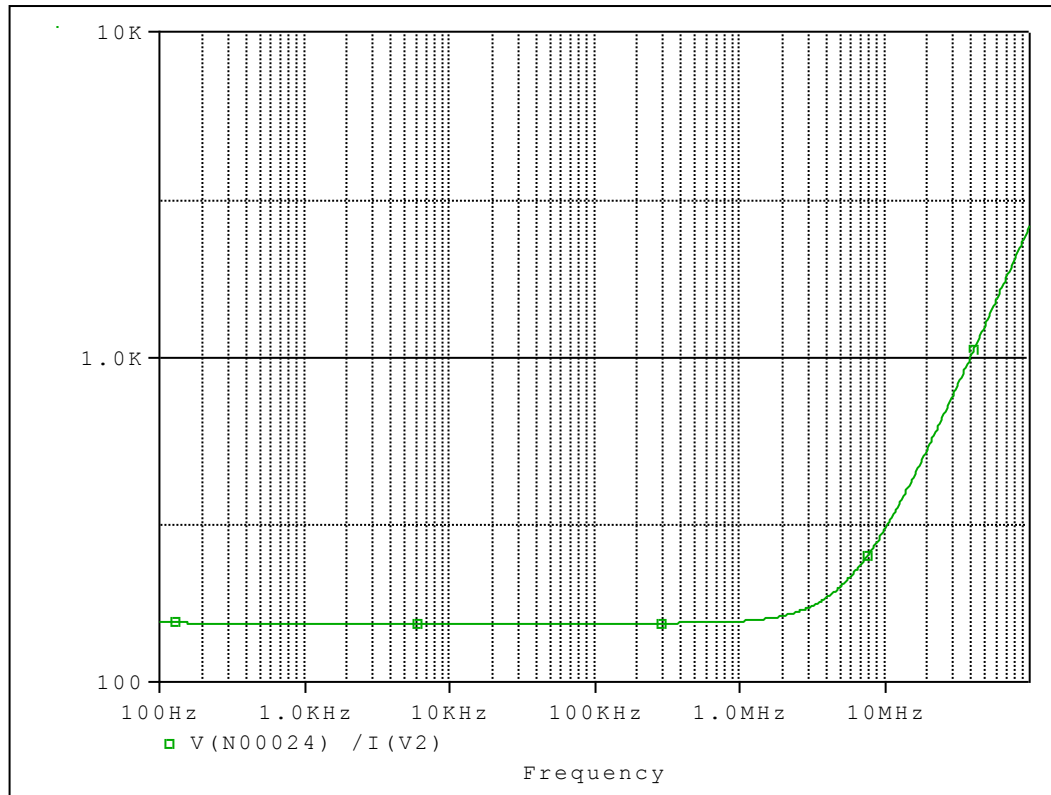
Measurement		
R1		
L1		
C1		

Equivalent circuit

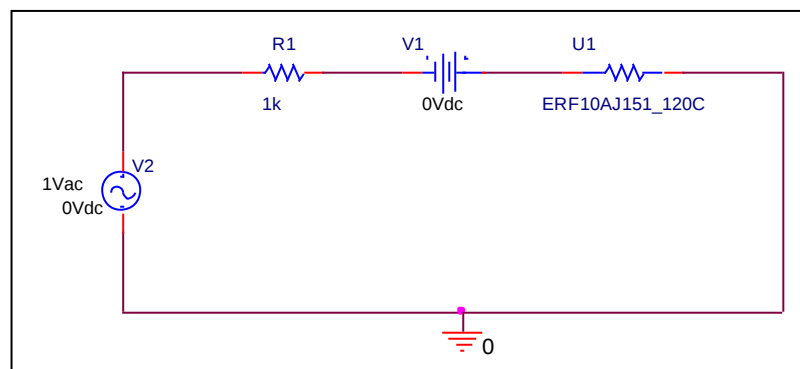


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	150.902	152.317	0.938
1K	150.989	151.607	0.410
10K	151.005	151.600	0.394
100K	150.907	151.621	0.473
1M	153.514	153.681	0.109
10M	298.614	294.155	1.493