

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ151
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

Optimization of Simulation

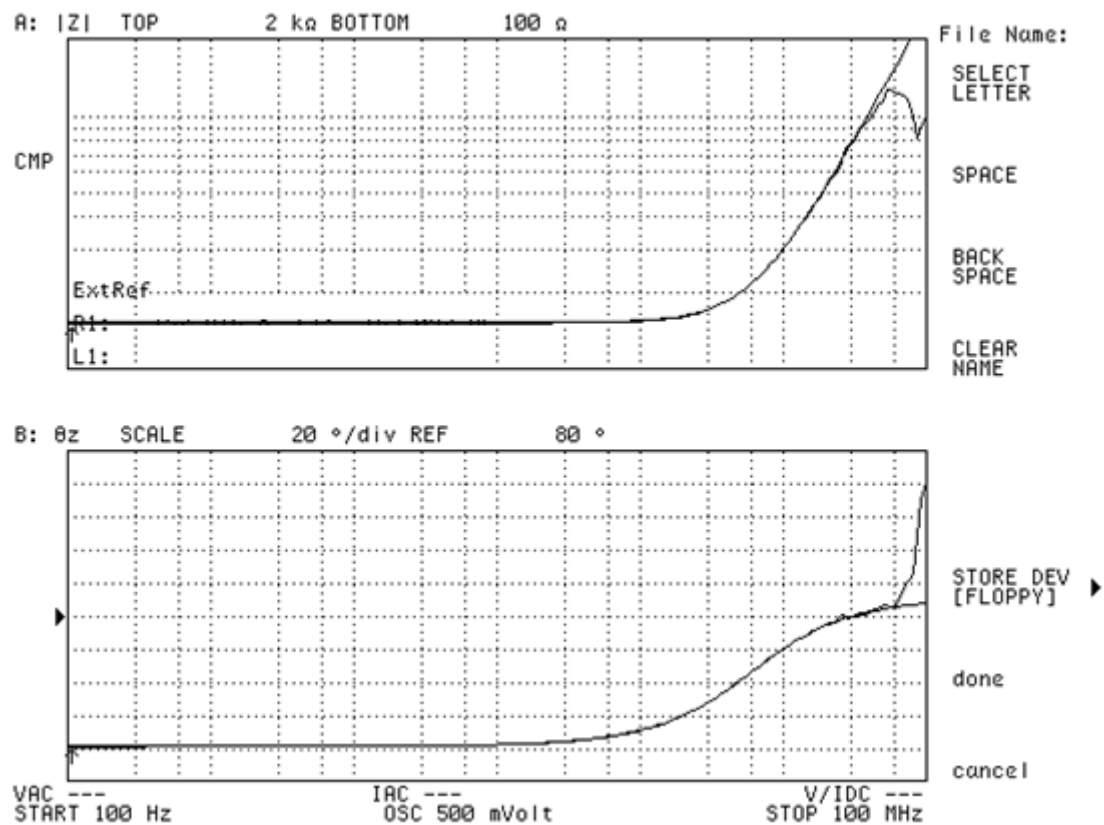
Range of adjustment Frequency: 100 to 100M(Hz)

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

Attention

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

100



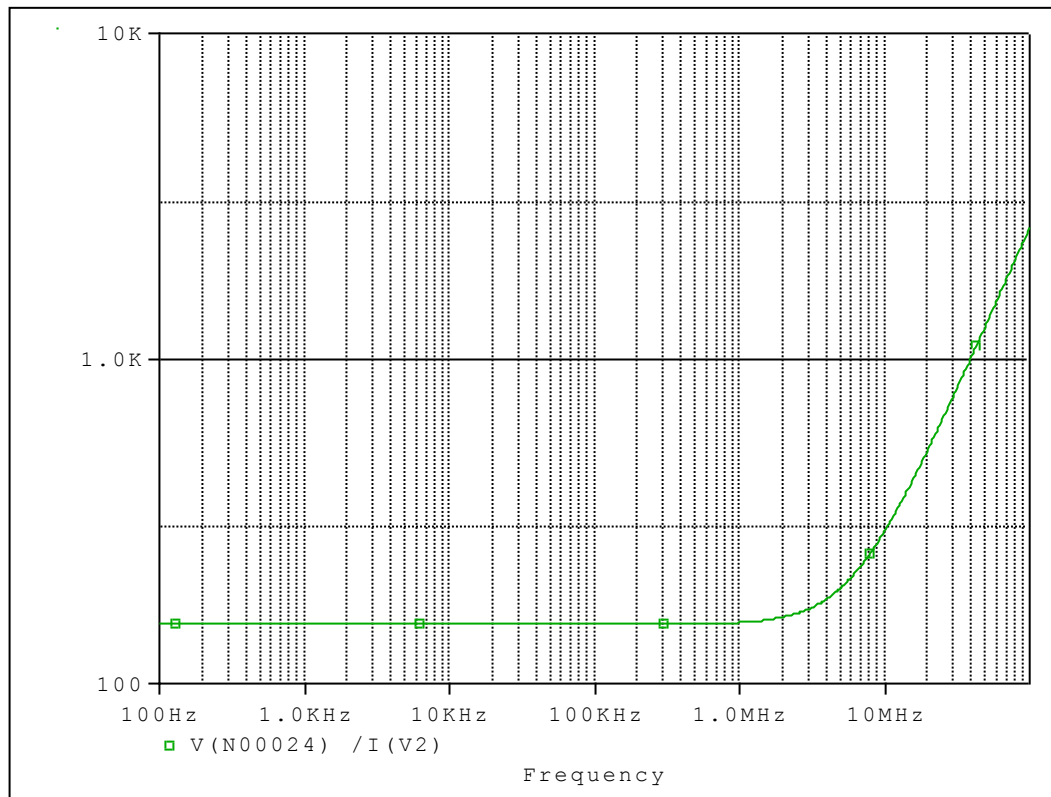
Measurement		
R1		
L1		
C1		

Equivalent circuit

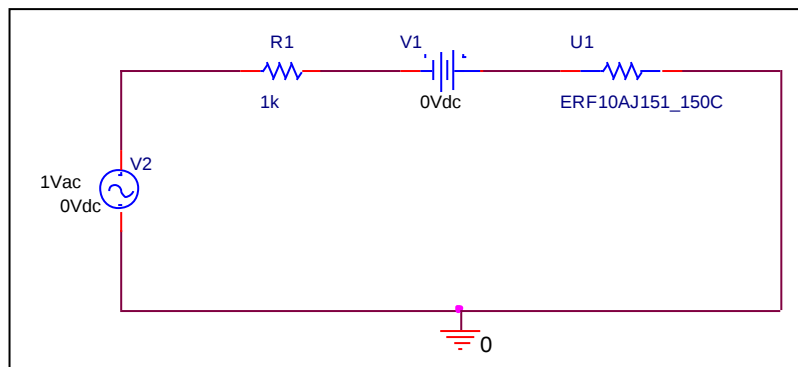


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	151.629	152.845	0.802
1K	151.693	152.024	0.218
10K	151.720	152.016	0.195
100K	151.619	152.037	0.276
1M	154.242	154.094	0.096
10M	299.162	294.517	1.553