

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ271
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

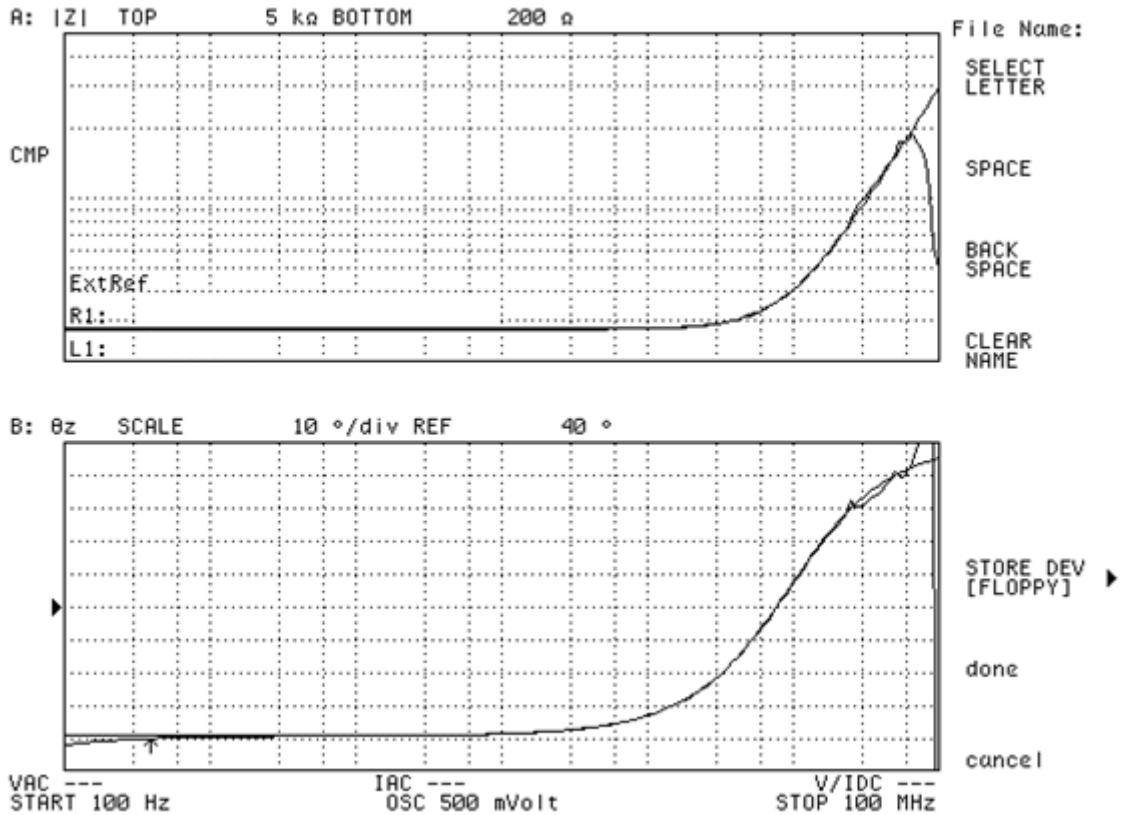
Optimization of Simulation

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

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

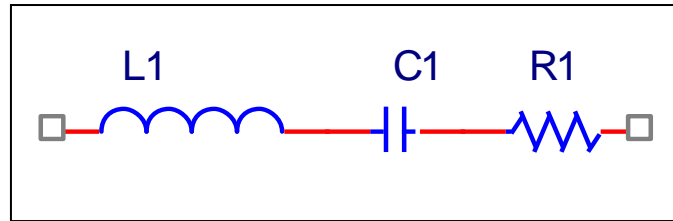
Attention

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



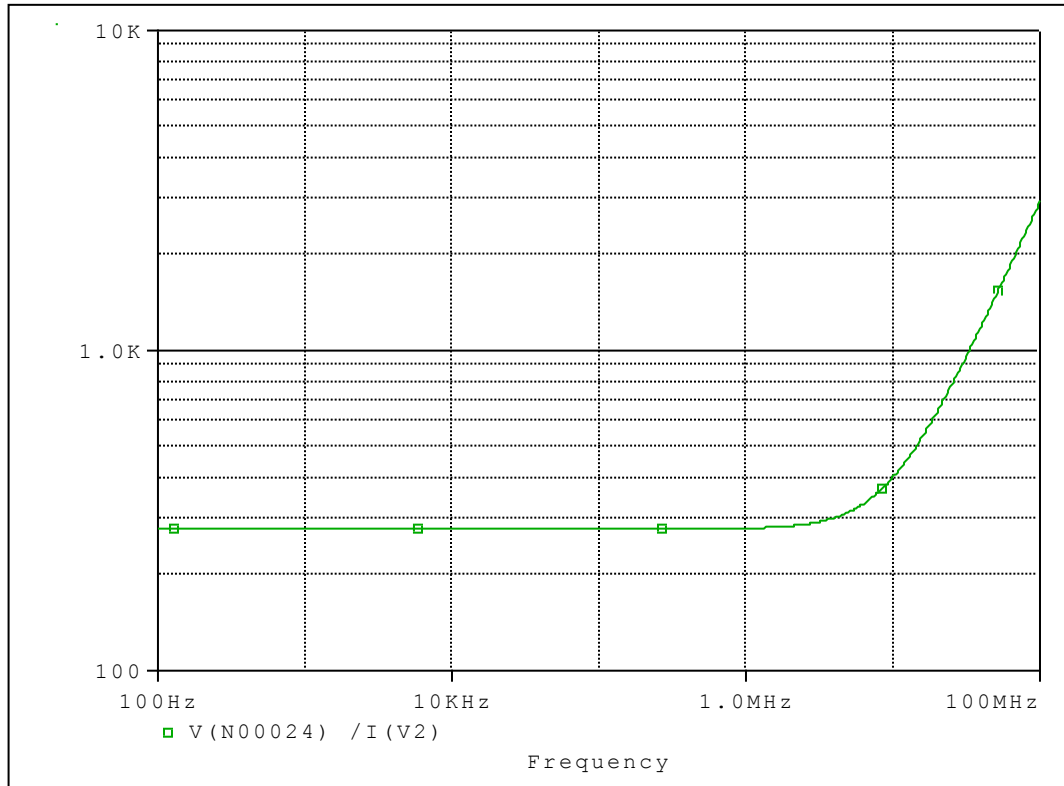
Measurement		
R1		
L1		
C1		

Equivalent circuit

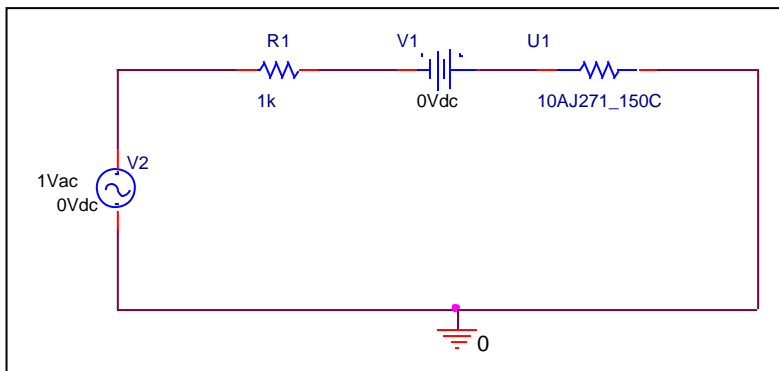


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	272.655	277.119	1.637
1K	272.565	277.119	1.671
10K	272.480	277.119	1.703
100K	272.473	277.134	1.711
1M	274.541	278.664	1.502
10M	406.879	401.929	1.217