

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ271
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

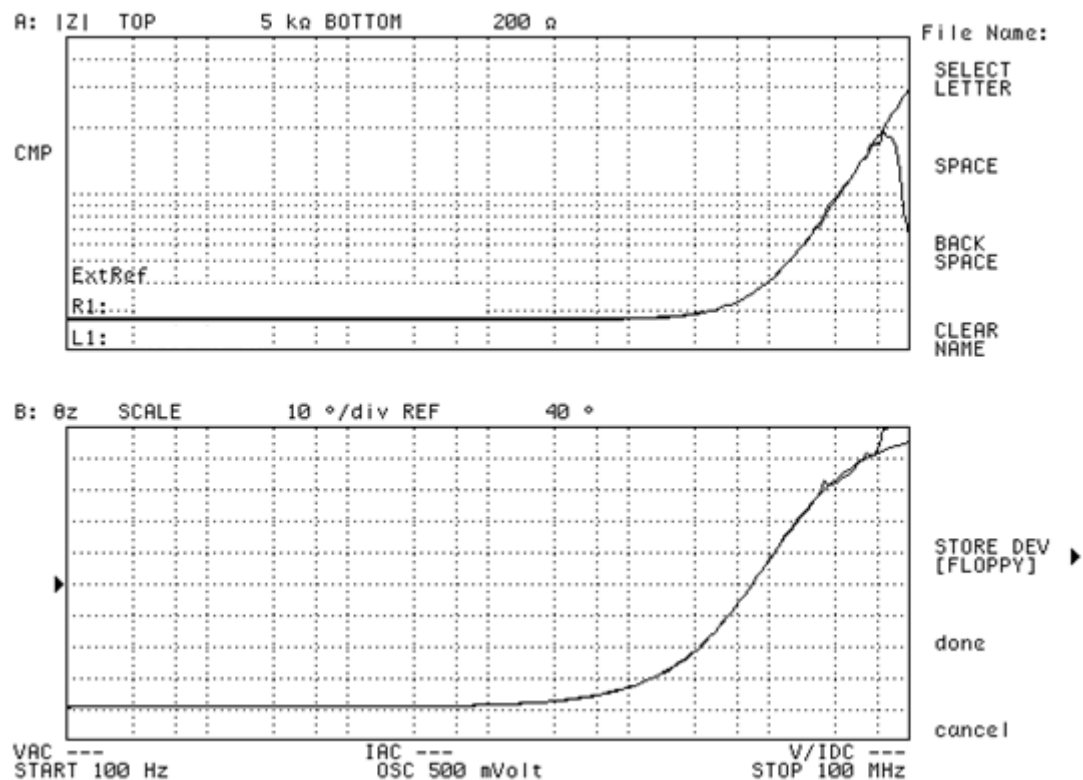
Optimization of Simulation

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)



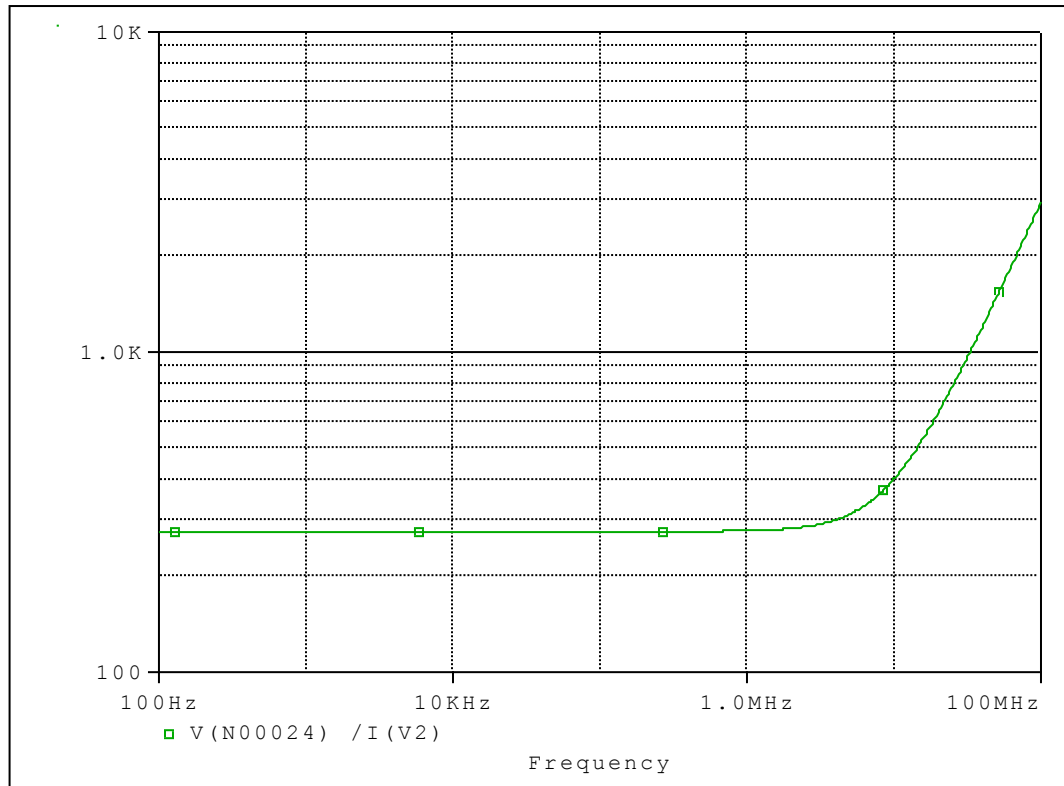
Measurement		
R1		
L1		
C1		

Equivalent circuit

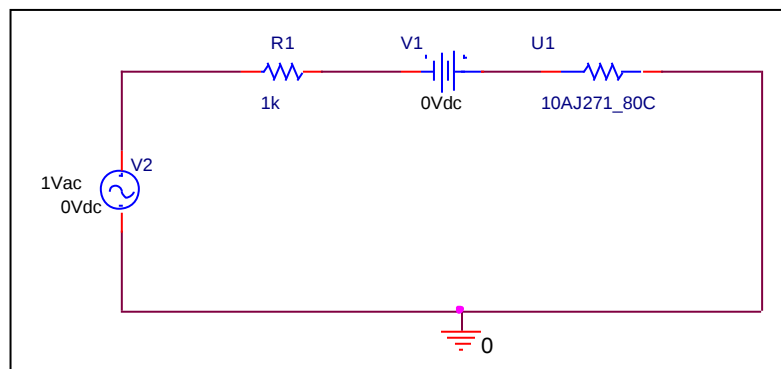


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	271.854	275.105	1.196
1K	271.905	275.105	1.177
10K	271.718	275.105	1.247
100K	271.810	275.121	1.218
1M	273.915	276.655	1.000
10M	406.545	401.510	1.238