

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AJ431
THERMAL:TA=80(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

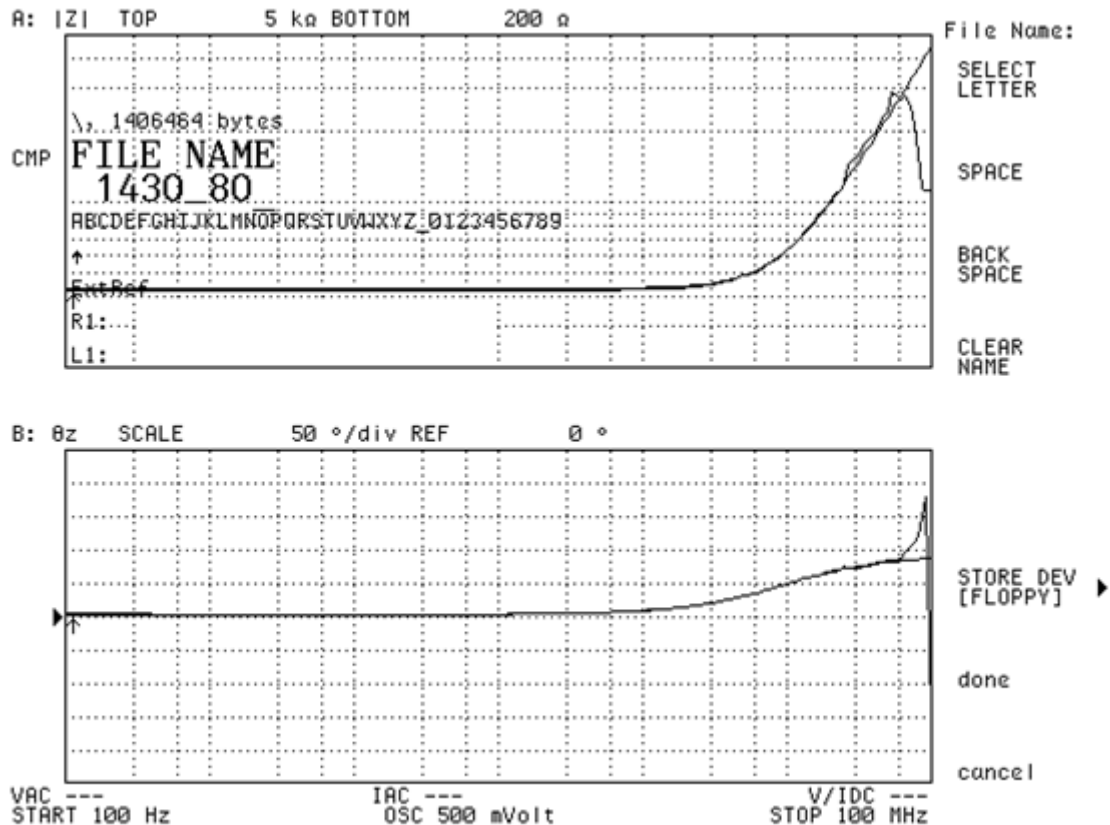
Optimization of Simulation

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)



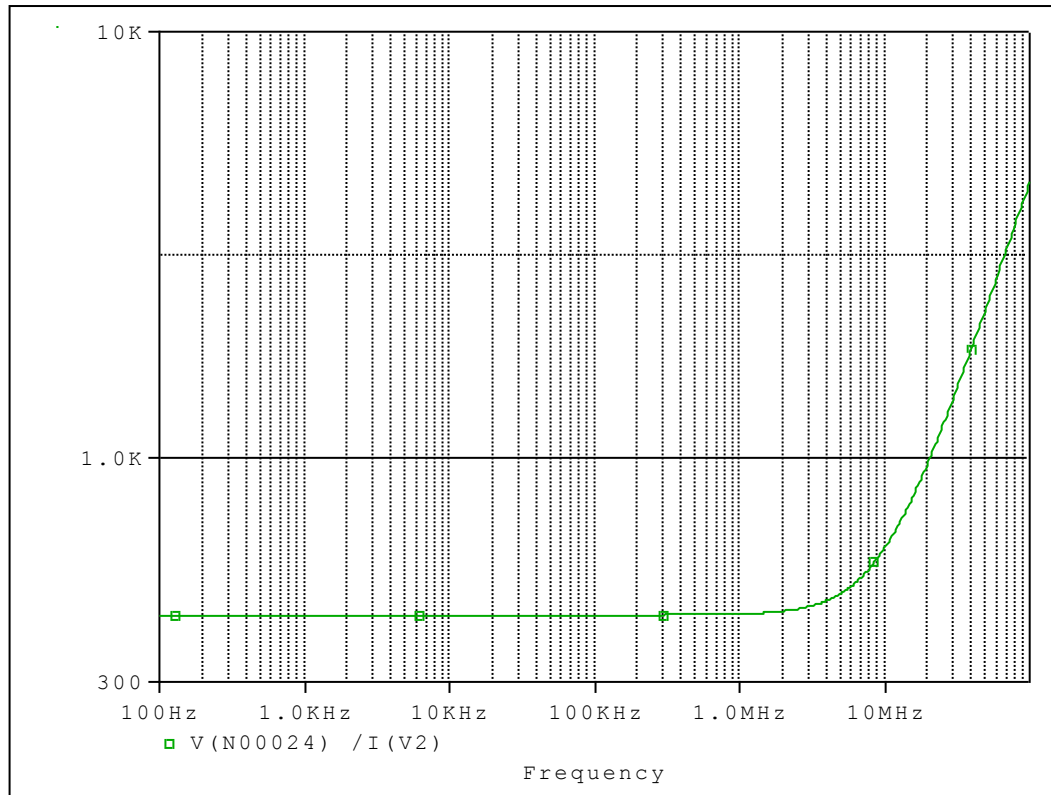
Measurement		
R1		
L1		
C1		

Equivalent circuit

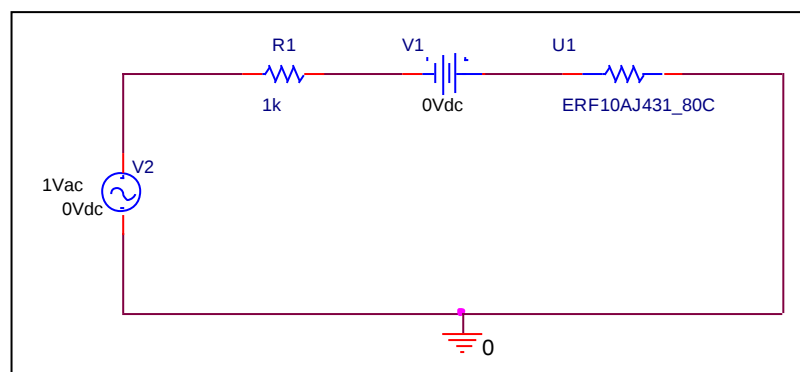


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	424.212	430.416	1.463
1K	424.241	430.414	1.455
10K	424.091	430.414	1.491
100K	424.178	430.437	1.476
1M	427.050	432.673	1.317
10M	625.389	616.654	1.397