

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ471
THERMAL: TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

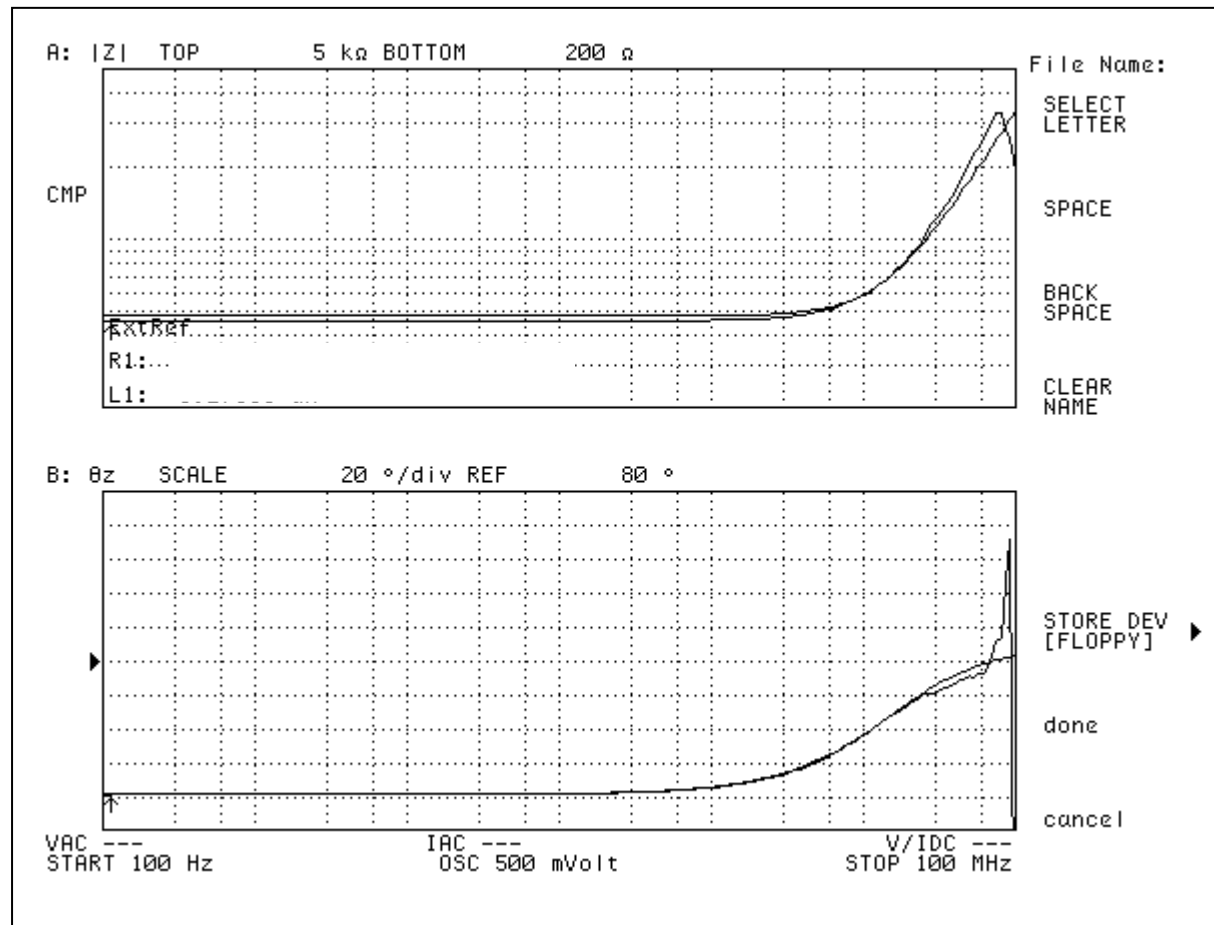
Optimization of Simulation

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

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

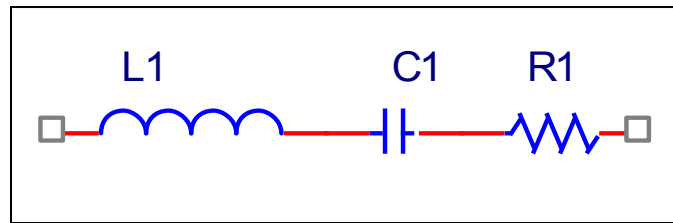
Attention

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



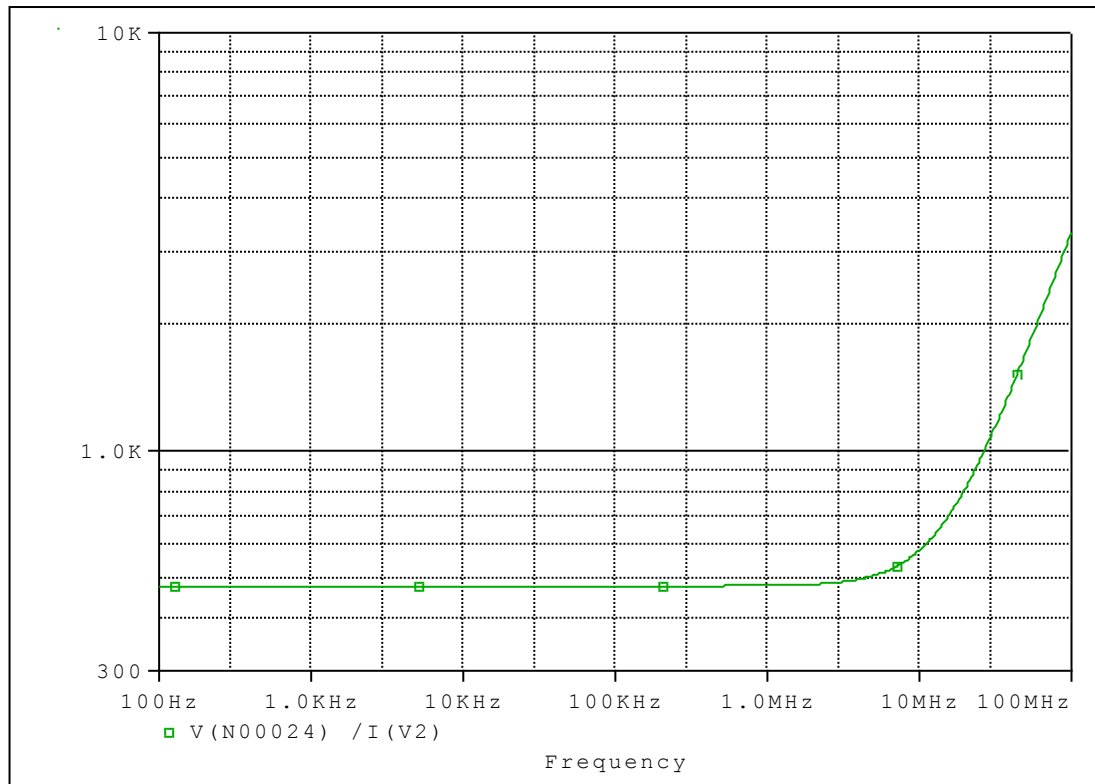
Measurement		
R1		
L1		
C1		

Equivalent circuit

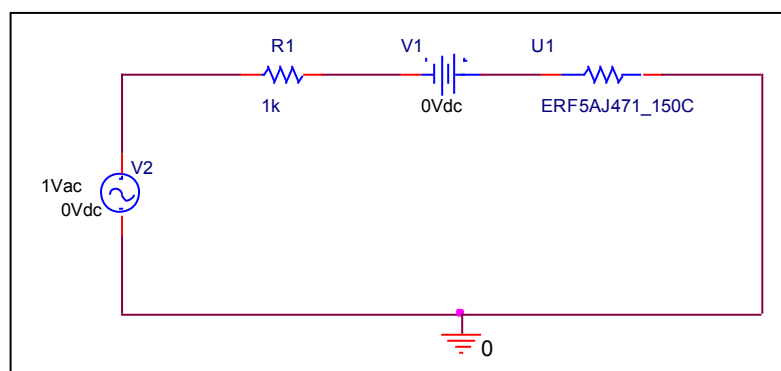


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	455.825	478.342	4.940
1K	455.777	478.339	4.950
10K	455.830	478.339	4.938
100K	455.829	478.350	4.941
1M	458.385	479.484	4.603
10M	581.515	581.825	0.053