Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ680
MANUFACTURER: MATSUSHITA

Bee Technologies Inc.

Theory: Auto Balancing Bridge Method
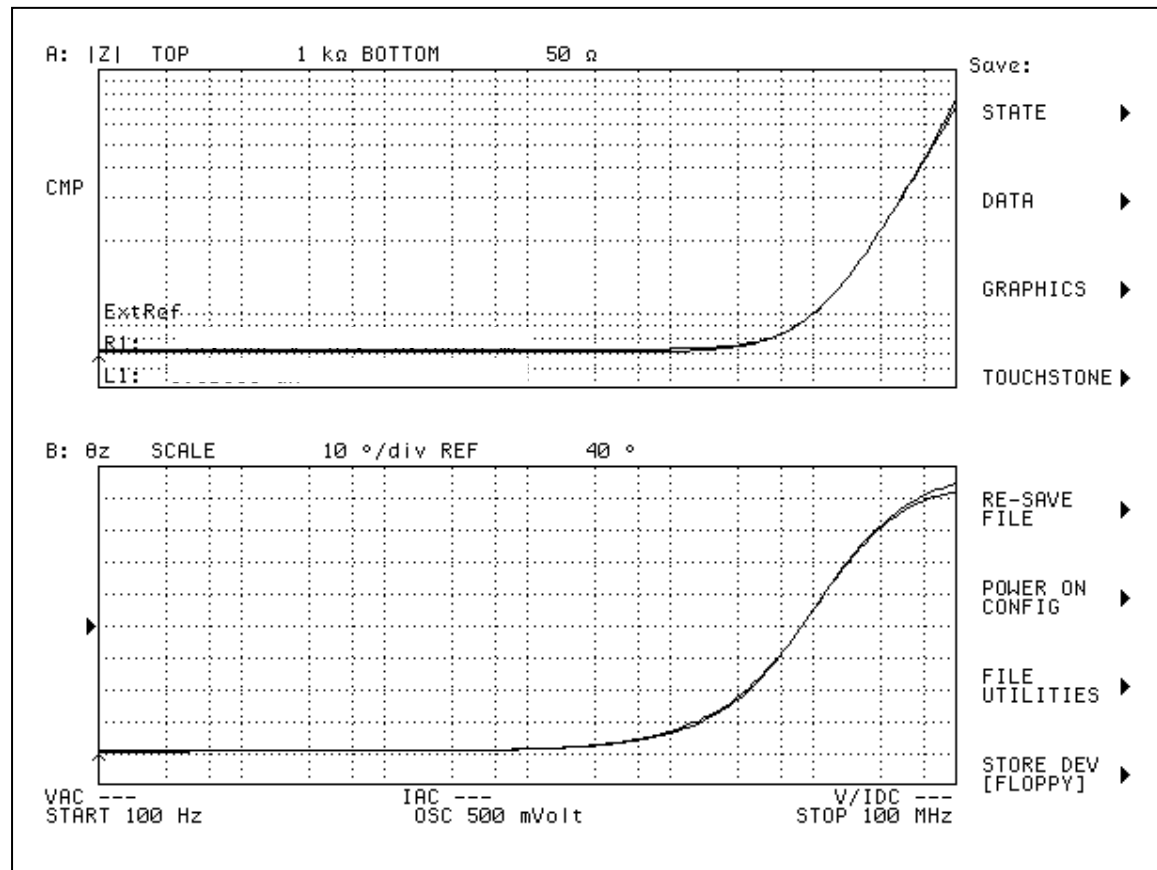
Optimization of Simulation
Range of adjustment Frequency:100 to100M(Hz)
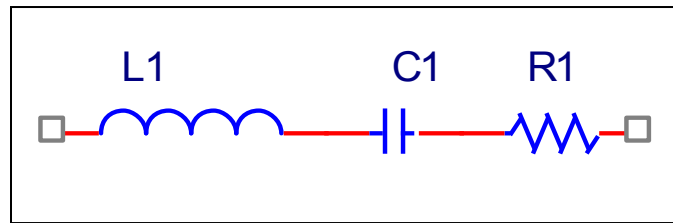Frequency vs.|Z| and Frequency vs. θ z Characteristic

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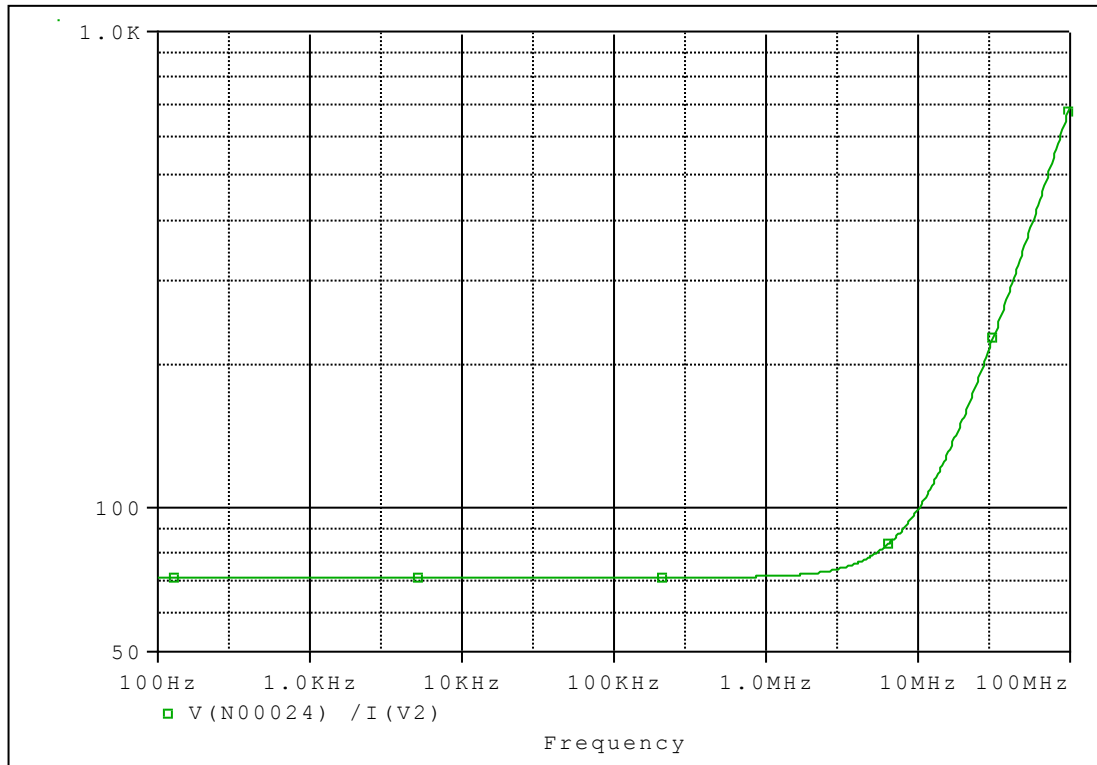*Please use SPICE MODEL within the range from 100 to 100M(Hz)*

Measurement		
R1		
L1		
C1		

Equivalent circuit

L1   C1   R1

Frequency vs. |Z| Characteristic

Circuit simulation result


```
     1.0K
                                                                          □

      100

       50
        100Hz    1.0KHz    10KHz    100KHz    1.0MHz    10MHz  100MHz
            □ V(N00024) /I(V2)
                              Frequency
```

Evaluation Circuit

R1   V1   U1
1k   0Vdc   ERF5AJ680

1Vac   V2
0Vdc

0
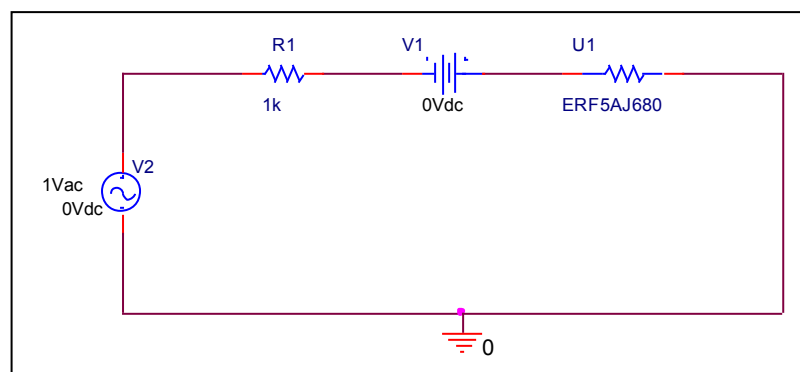
Simulation Result

Frequency(HZ)	|Z|(ohm) Measurement	|Z|(ohm) Circuit Simulation	%Error
100	69.458	71.591	3.071
1K	69.464	71.589	3.059
10K	69.435	71.589	3.102
100K	69.455	71.593	3.078
1M	70.152	71.923	2.525
10M	99.621	99.569	0.052
100M	747.842	695.617	6.983