

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AKR33
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

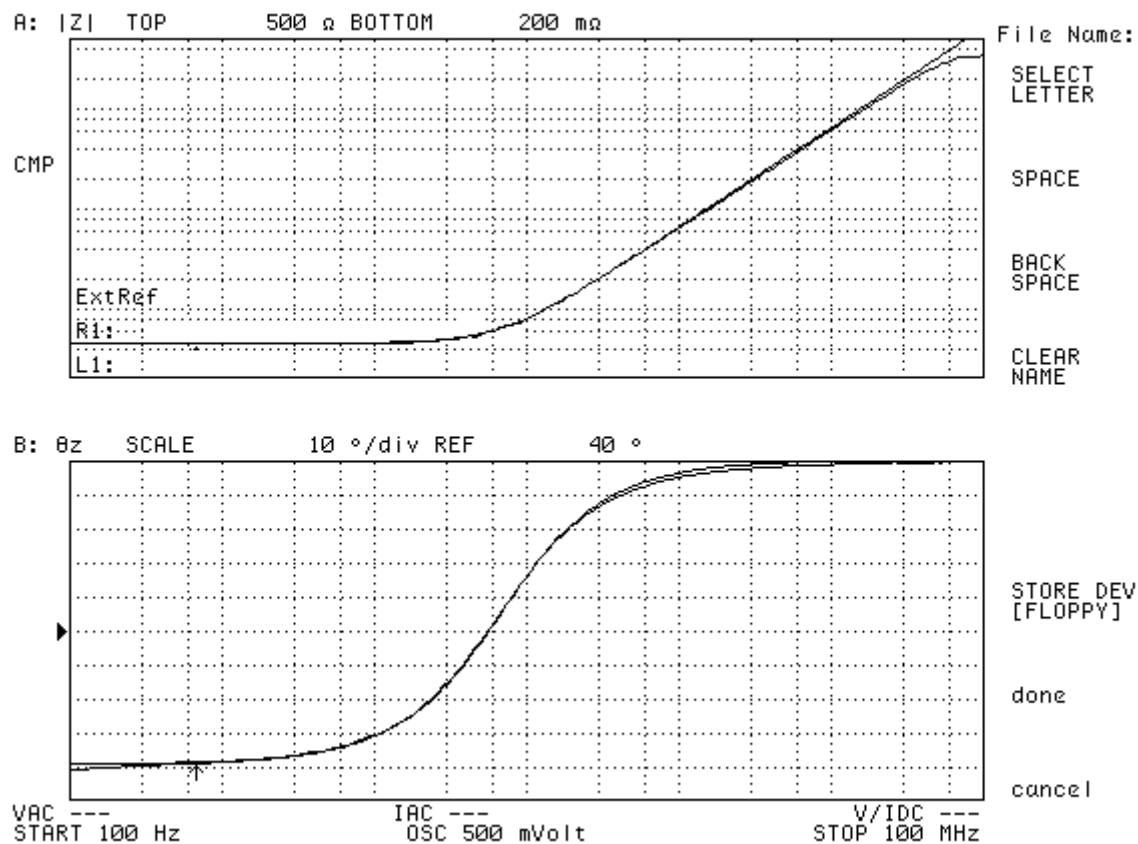
Optimization of Simulation

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

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

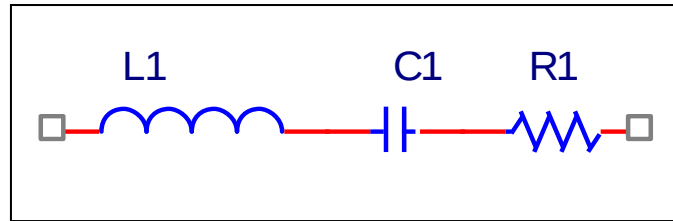
Attention

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



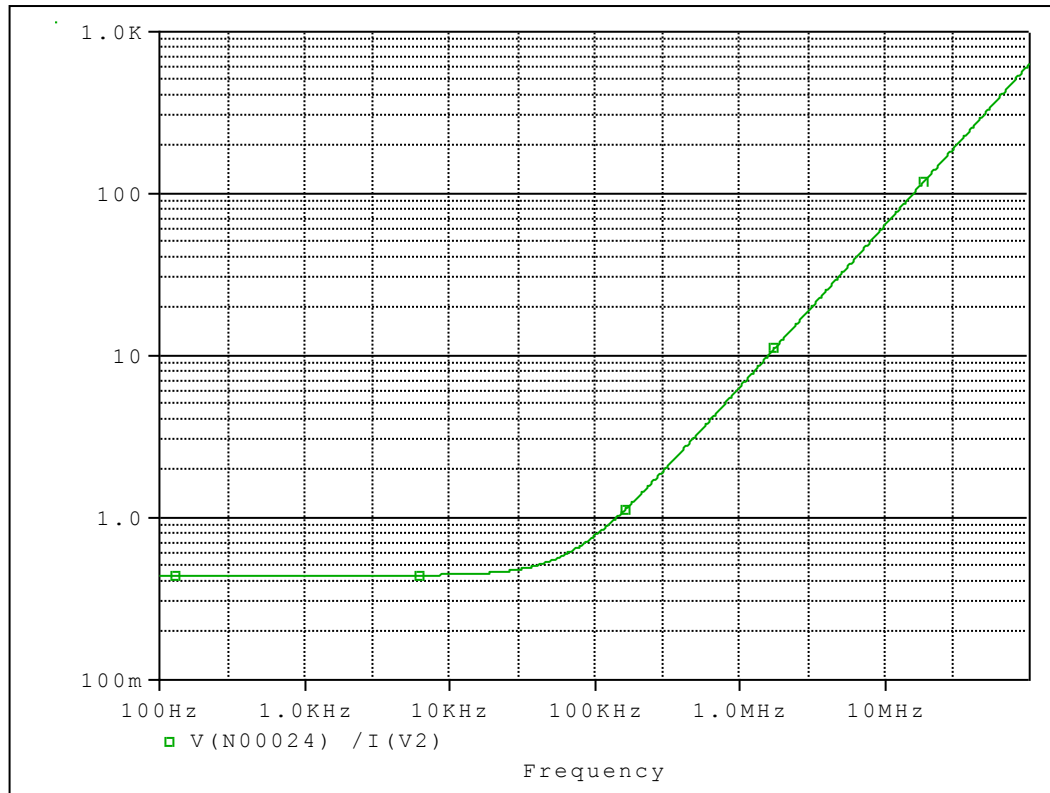
Measurement		
R1		
L1		
C1		

Equivalent circuit

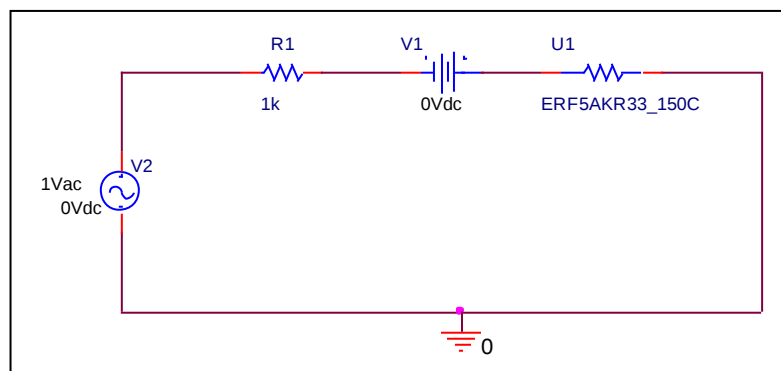


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	430.726	441.642	2.534
1K	429.532	441.640	2.819
10K	436.870	445.967	2.082
100K	772.553	774.018	0.190
1M	6.480	6.374	1.640
10M	61.020	63.583	4.200