

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AKR33
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

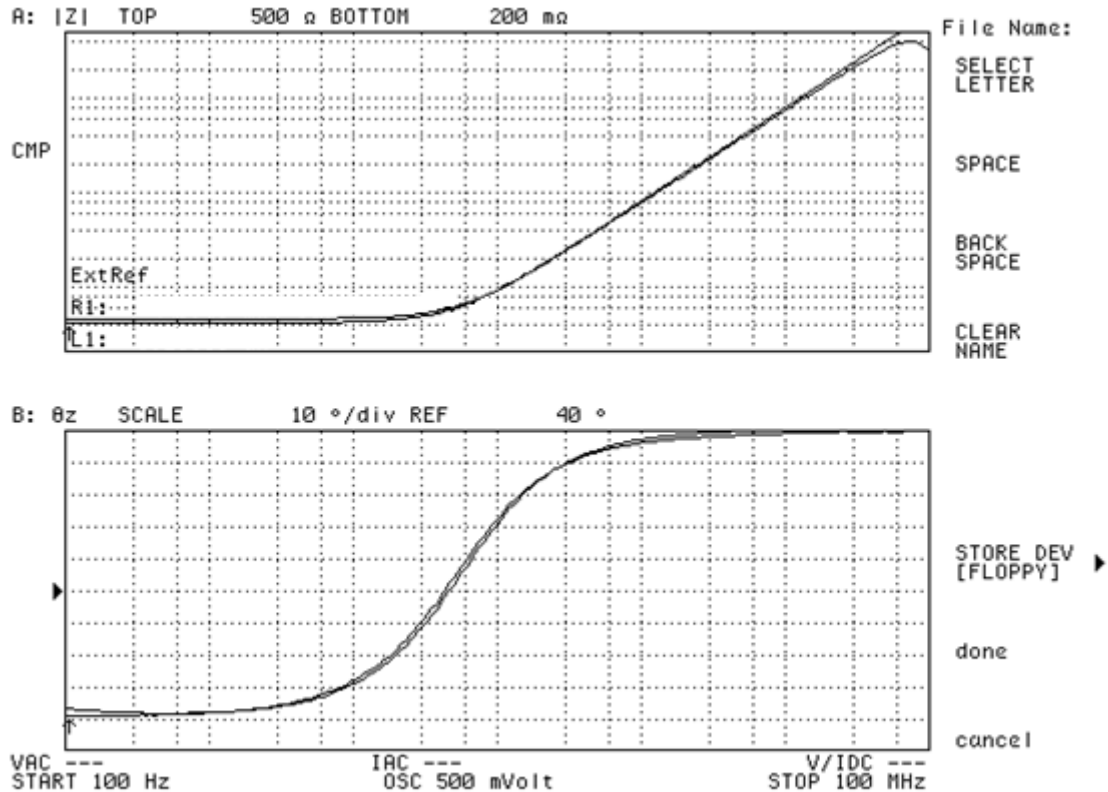
Optimization of Simulation

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

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

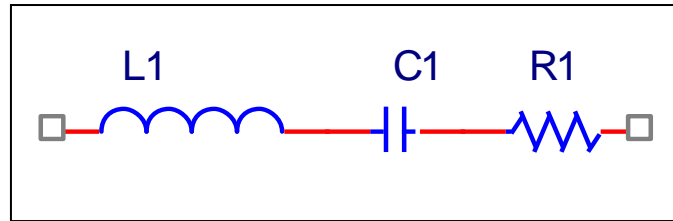
Attention

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



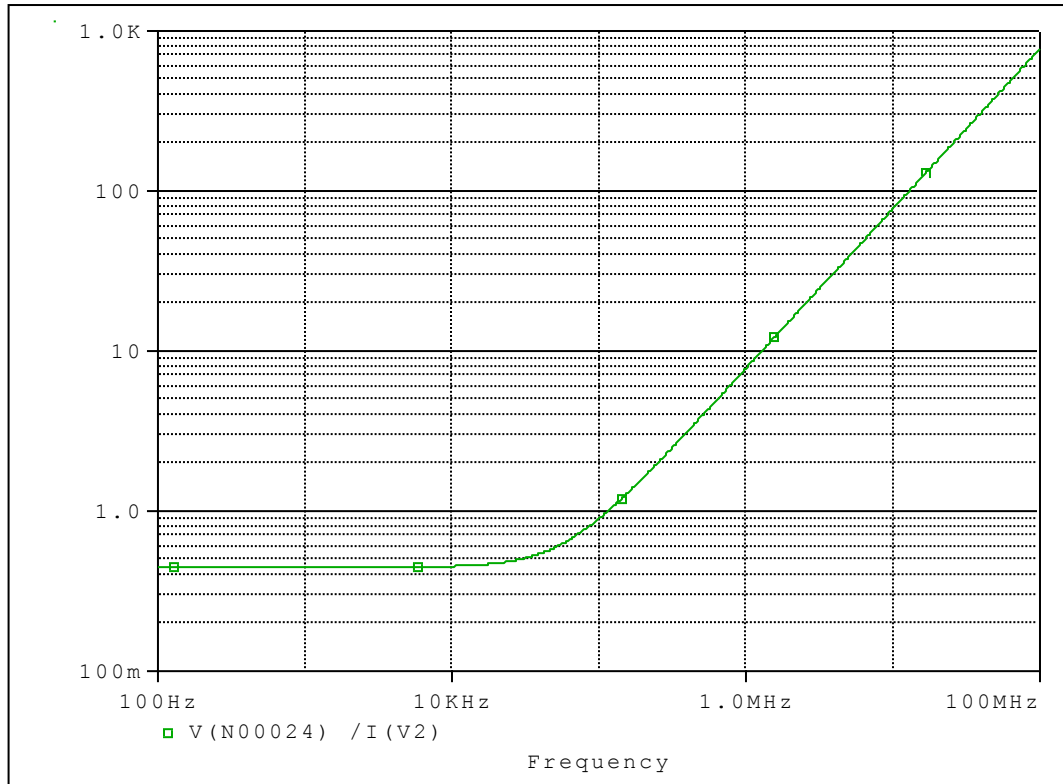
Measurement		
R1		
L1		
C1		

Equivalent circuit

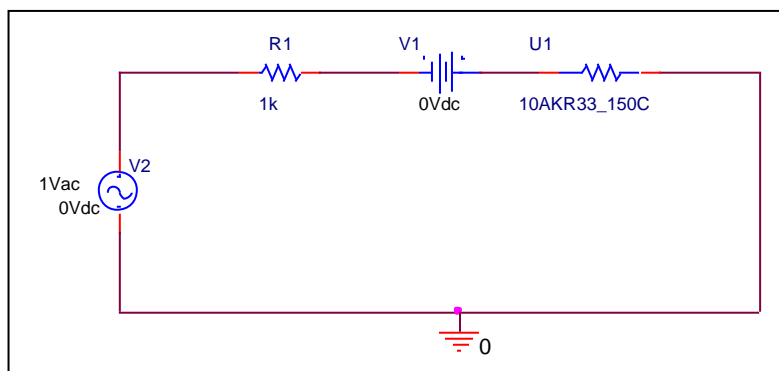


Frequency vs. |Z| Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	413.555	445.99	7.843
1K	414.412	445.589	7.523
10K	422.523	452.265	7.039
100K	871.843	896.861	2.870
1M	7.858	7.796	0.789
10M	73.759	77.893	5.605