

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF10AK2R0
THERMAL:TA=150(degree)
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

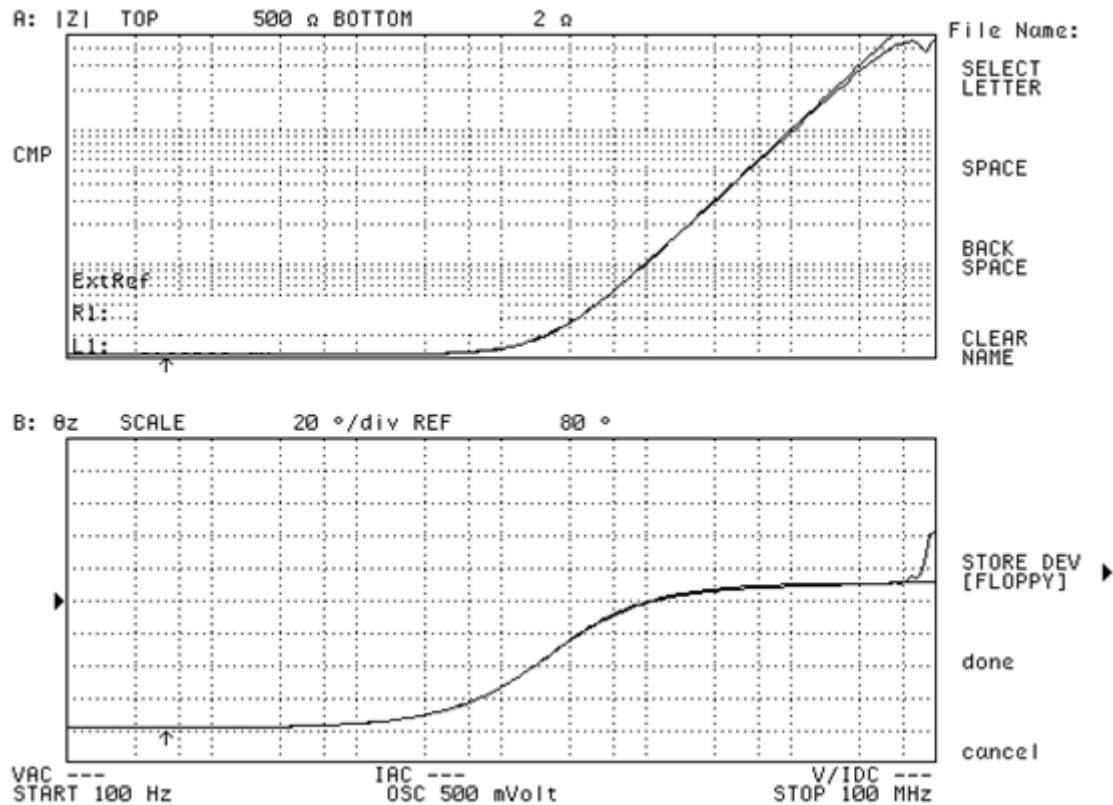
Optimization of Simulation

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)



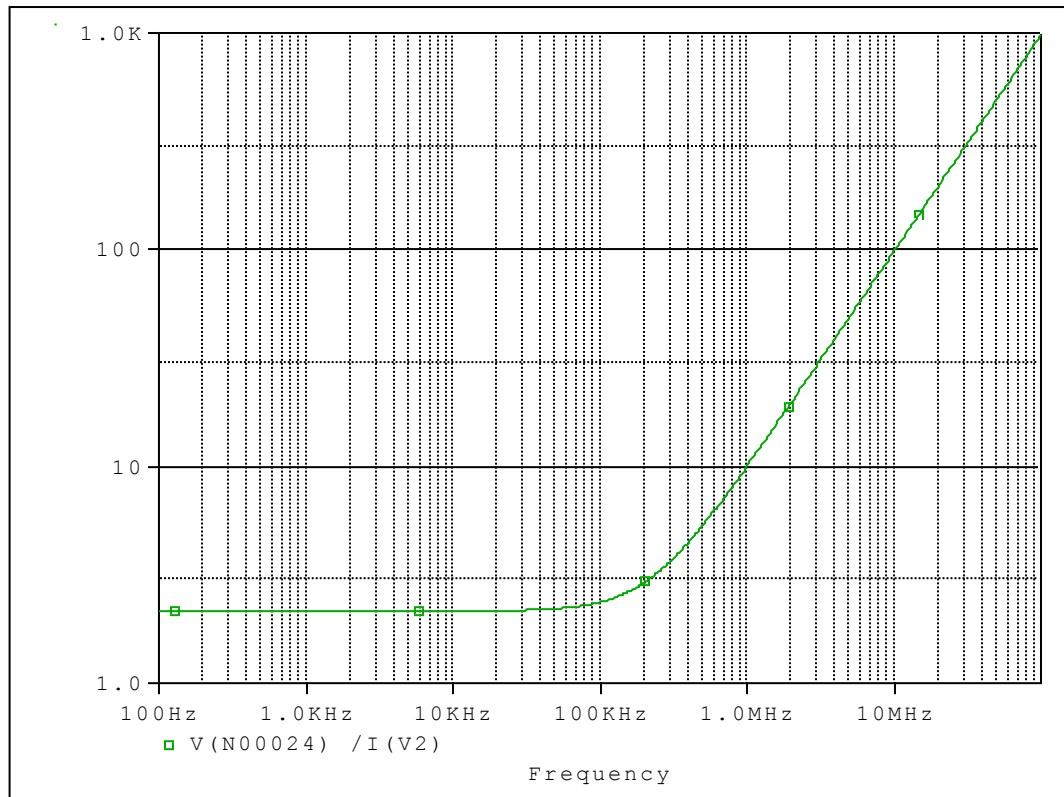
Measurement		
R1		
L1		
C1		

Equivalent circuit

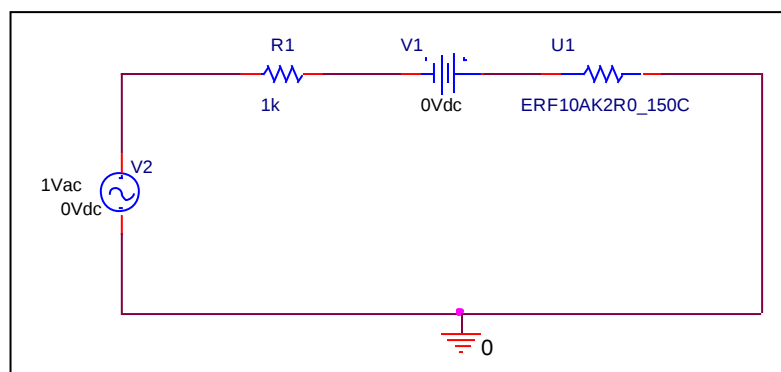


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	Z (ohm) Measurement	Z (ohm) Circuit Simulation	%Error
100	2.122	2.150	1.355
1K	2.123	2.150	1.291
10K	2.126	2.153	1.242
100K	2.351	2.363	0.527
1M	10.386	10.041	3.320
10M	95.738	98.102	2.469