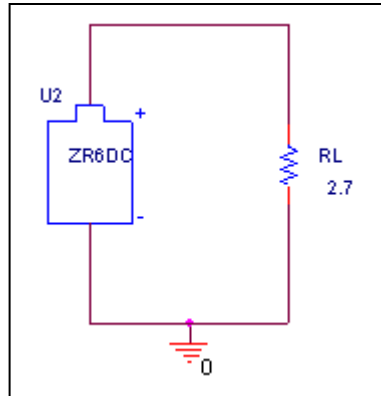# Device Modeling Report

COMPONENTS: NICKEL MANGANESE
PART NUMBER: ZR6DC
MANUFACTURER: SONY
REMARK: RL =2.7(Ω)
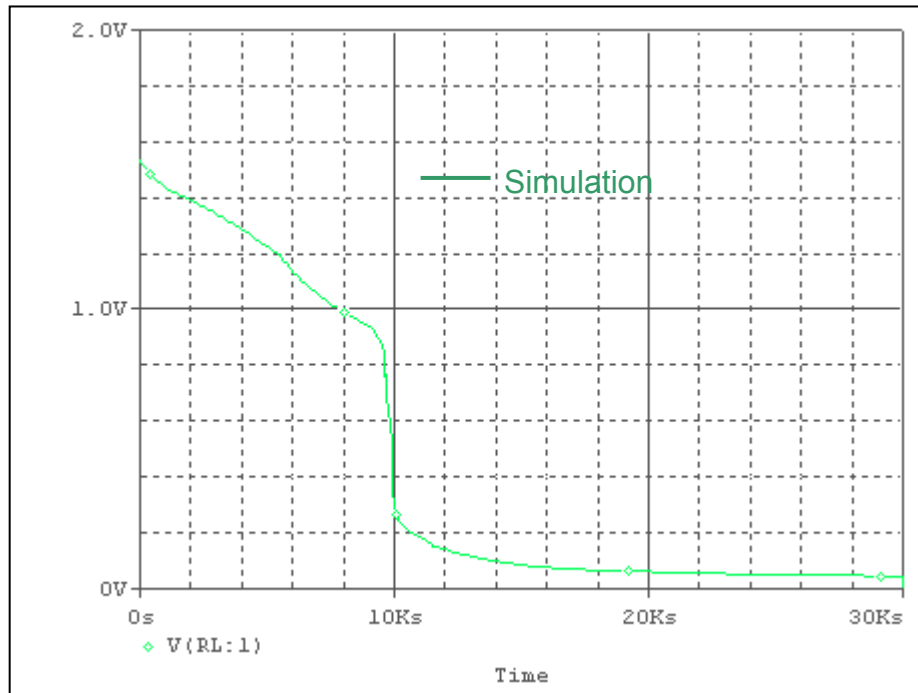

Bee Technologies Inc.

Evaluation Circuit

U2

ZR6DC

+

-

RL
2.7

0

Simulation result

2.0V

1.0V

0V

0s   10Ks   20Ks   30Ks

◇ V(RL:1)

Simulation

Time

Comparison Table

Time (kSec)	Vdc(V) Measurement	Vdc(V) Simulation	%Error
0	1.5404210	1.53100	0.612
0.5	1.4753490	1.47330	0.139
1	1.4363230	1.43330	0.210
1.5	1.4117100	1.41260	-0.063
2	1.3900410	1.39030	-0.019
2.5	1.3662930	1.36650	-0.015
3	1.3411550	1.34100	0.012
3.5	1.3139490	1.31280	0.087
4	1.2855390	1.28540	0.011
4.5	1.2555310	1.25520	0.026
5	1.2244720	1.22340	0.088
5.5	1.1862450	1.19320	-0.586
6	1.1403360	1.13690	0.301
6.5	1.0931680	1.09010	0.281
7	1.0473350	1.05150	-0.398
7.5	1.0179840	1.01920	-0.119
8	0.9920140	0.990768	0.126
8.5	0.9669332	0.964103	0.293
9	0.9362156	0.937400	-0.127
9.5	0.8747608	0.865887	1.014
10	0.2826533	0.276923	2.027
10.5	0.2136701	0.211966	0.798
11	0.1829778	0.183887	-0.497
11.5	0.1586620	0.154068	2.895
12	0.1405429	0.139748	0.566
12.5	0.1260462	0.127116	-0.849
13	0.1146171	0.116055	-1.255
13.5	0.1050907	0.106449	-1.293
14	0.0973731	0.098183	-0.832
14.5	0.0910194	0.091142	-0.135
15	0.0856350	0.085207	0.500
15.5	0.0810607	0.080066	1.227
16	0.0773482	0.076200	1.484
16.5	0.0739580	0.072895	1.437
17	0.0712095	0.070235	1.369
17.5	0.0687175	0.068103	0.894
18	0.0666019	0.066384	0.327
18.8	0.0647706	0.064962	-0.296

Time (kSec)	Vdc(V) Measurement	Vdc(V) Simulation	%Error
19	0.0630556	0.063722	-1.057
19.5	0.0616461	0.062546	-1.460
20	0.0602888	0.061320	-1.711
21	0.0579721	0.056703	2.189
22	0.0558193	0.055223	1.068
23	0.0539474	0.053782	0.307
24	0.0522889	0.052379	-0.172
25	0.0508160	0.051012	-0.386
26	0.0494486	0.049681	-0.470
24	0.0482330	0.048385	-0.315
28	0.0471046	0.047122	-0.037
29	0.0460267	0.045892	0.293
30	0.0450116	0.040065	10.990

Comparison Graph