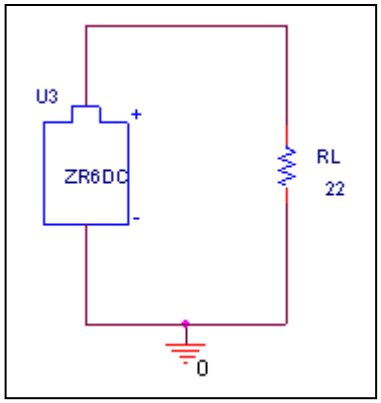
Device Modeling Report

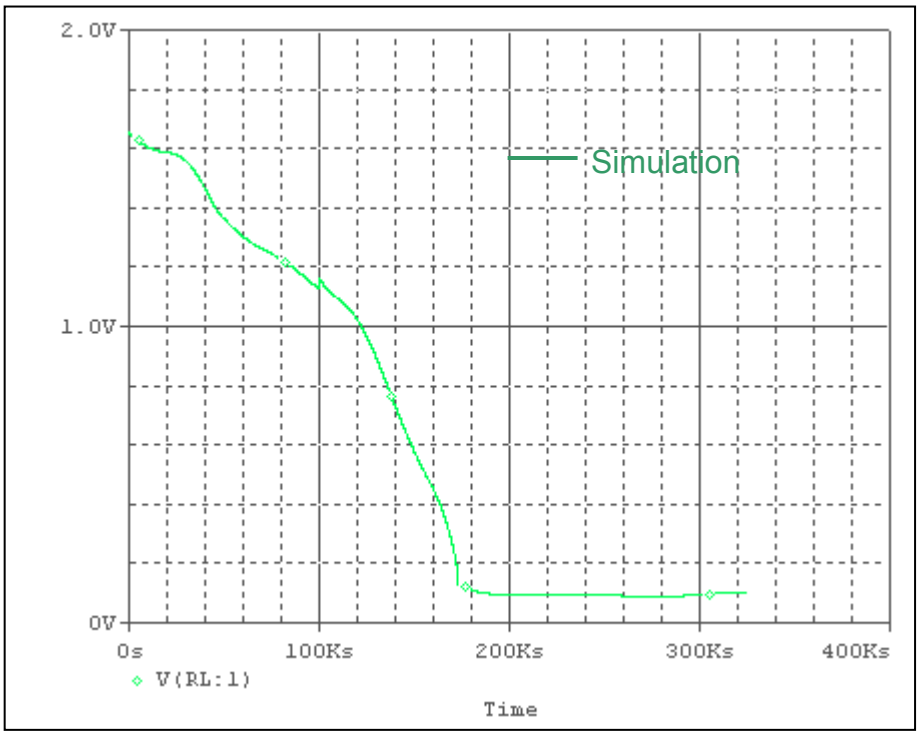
COMPONENTS: NICKEL MANGANESE
PART NUMBER: ZR6DC
MANUFACTURER: SONY
REMARK: RL =22(Ω)

Bee Technologies Inc.

Evaluation circuit



Simulation result



Comparison Table

Time (kSec)	Vdc(V) Measurement	Vdc(V) Simulation	%Error
0.5	1.659741	1.6503	0.569
4	1.628015	1.6311	-0.189
5	1.622915	1.6259	-0.184
6	1.618144	1.6208	-0.164
7	1.61381	1.6162	-0.148
8	1.610439	1.6119	-0.091
9	1.607747	1.608	-0.016
10	1.60581	1.6045	0.082
11	1.604344	1.6014	0.184
12	1.602932	1.5988	0.258
13	1.600995	1.5965	0.281
14	1.598806	1.5945	0.269
15	1.596749	1.5929	0.241
16	1.594845	1.5914	0.216
17	1.592699	1.5902	0.157
18	1.59015	1.5891	0.066
19	1.587873	1.588	-0.008
20	1.585728	1.5869	-0.074
21	1.583496	1.5856	-0.133
22	1.581384	1.5842	-0.178
23	1.578998	1.5825	-0.222
24	1.576514	1.5805	-0.253
25	1.573679	1.578	-0.275
26	1.570658	1.5751	-0.283
27	1.567331	1.5716	-0.272
28	1.563632	1.5675	-0.247
29	1.559835	1.5628	-0.190
30	1.555698	1.5573	-0.103
31	1.551266	1.5512	0.004
32	1.546111	1.5442	0.124
33	1.540672	1.5366	0.264
34	1.534467	1.5281	0.415
35	1.527069	1.5189	0.535
36	1.517942	1.509	0.589
37	1.506156	1.4985	0.508
38	1.491819	1.4874	0.296
39	1.475546	1.4758	-0.017
40	1.459754	1.4638	-0.277

Time (kSec)	Vdc(V) Measurement	Vdc(V) Simulation	%Error
41	1.445516	1.4515	-0.414
42	1.432919	1.4392	-0.438
43	1.421713	1.4269	-0.365
44	1.411448	1.415	-0.252
45	1.401828	1.4035	-0.119
46	1.393215	1.3929	0.023
47	1.385106	1.3832	0.138
48	1.377467	1.375	0.179
49	1.370255	1.3685	0.128
50	1.363284	1.3629	0.028
51	1.356367	1.3545	0.138
52	1.349527	1.349	0.039
53	1.342786	1.3423	0.036
54	1.336231	1.3359	0.025
55	1.329938	1.3297	0.018
56	1.32393	1.3236	0.025
57	1.31814	1.3178	0.026
58	1.312614	1.3122	0.032
59	1.307405	1.3069	0.039
60	1.302403	1.3018	0.046
61	1.297621	1.2969	0.056
62	1.293145	1.2923	0.065
63	1.2888	1.2878	0.078
64	1.284641	1.2836	0.081
65	1.280778	1.2796	0.092
66	1.276882	1.2757	0.093
67	1.273172	1.272	0.092
68	1.269484	1.2683	0.093
69	1.265916	1.2649	0.080
70	1.262469	1.2614	0.085
71	1.259011	1.2581	0.072
72	1.255552	1.2547	0.068
73	1.252105	1.2514	0.056
74	1.248691	1.248	0.055
75	1.245265	1.2446	0.053
76	1.241785	1.2412	0.047
77	1.238327	1.2376	0.059
78	1.234803	1.234	0.065
79	1.23129	1.2302	0.089
80	1.227635	1.2263	0.109

Time (kSec)	Vdc(V) Measurement	Vdc(V) Simulation	%Error
81	1.223991	1.2222	0.146
82	1.220302	1.218	0.189
83	1.216461	1.2137	0.227
84	1.21216	1.2091	0.252
85	1.20694	1.2043	0.219
86	1.20126	1.1994	0.155
87	1.195734	1.1944	0.112
88	1.190415	1.1891	0.110
89	1.185019	1.1838	0.103
90	1.179909	1.1784	0.128
91	1.174514	1.1729	0.137
92	1.169304	1.1674	0.163
93	1.163865	1.1618	0.177
94	1.158525	1.1563	0.192
95	1.153009	1.1509	0.183
96	1.1478	1.1457	0.183
97	1.143488	1.1407	0.244
98	1.139493	1.1361	0.298
99	1.134744	1.1319	0.251
100	1.128582	1.1501	-1.907
101	1.121742	1.1524	-2.733
102	1.115154	1.1423	-2.434
103	1.108435	1.1337	-2.279
104	1.101847	1.1261	-2.201
105	1.095226	1.1194	-2.207
106	1.088594	1.1133	-2.270
107	1.081841	1.1078	-2.400
108	1.075056	1.1025	-2.553
109	1.06826	1.0975	-2.737
110	1.0613	1.0924	-2.930
115	1.026356	1.0637	-3.639
120	0.9856671	1.0223	-3.717
125	0.9288143	0.965	-3.896
130	0.8449836	0.893	-5.683
135	0.7551688	0.813	-7.658
140	0.6897409	0.729	-5.692
145	0.6165655	0.649	-5.261
150	0.4984202	0.577	-15.766
155	0.4352808	0.512	-17.625
160	0.3800743	0.449	-18.135

Time (kSec)	Vdc(V) Measurement	Vdc(V) Simulation	%Error
165	0.3212905	0.373	-16.094
170	0.1558507	0.262	-68.110
175	0.1177232	0.123	-4.482
180	0.1078285	0.111	-2.941
185	0.1044375	0.102	2.334
190	0.093932	0.097	-3.266
195	0.0874082	0.094	-7.541
200	0.0844661	0.093	-10.103
205	0.0876816	0.092	-4.925
210	0.0892473	0.093	-4.205
215	0.0895374	0.093	-3.867
220	0.089154	0.094	-5.436
225	0.0885527	0.0955	-7.845
230	0.0876053	0.0953	-8.783
235	0.0868806	0.0952	-9.576
240	0.0863528	0.0947	-9.666
245	0.0858688	0.094	-9.469
250	0.0858326	0.0931	-8.467
255	0.0864918	0.0921	-6.484
260	0.0803421	0.091	-13.266
265	0.0773258	0.0901	-16.520
270	0.0781708	0.0894	-14.365
275.5	0.0774843	0.0891	-14.991
280	0.076382	0.0892	-16.781
285	0.0759819	0.0898	-18.186
290	0.0775997	0.0909	-17.140
295	0.0799894	0.0924	-15.515
300	0.0815529	0.0944	-15.753
305	0.0825051	0.0966	-17.084
310	0.0831793	0.0988	-18.780
315	0.0836084	0.1007	-20.442
320	0.084166	0.102	-21.189
325	0.0846836	0.102	-20.448

Comparison Graph