



AHEAD OF WHAT'S POSSIBLE™

LOW DOSE RADIATION TEST REPORT AD648S

April 2004

Generic

Radiation Test Report

Product:	AD648S
Gamma:	0,30k, 50k, 100k, 24Hr
Gamma Source:	Co60/TM1019 Condition A
Dose Rate:	43.32 Rad/s
Facilities:	National Semiconductor
Tested:	April 5th, 2004

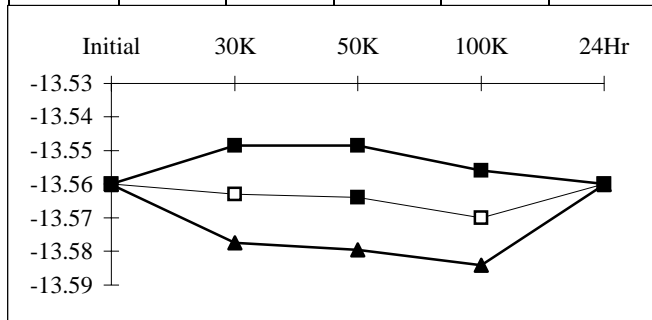
The RADTEST® DATA SERVICE is a compilation of radiation test results on Analog Devices' Space grade products. It is designed to assist customers in selecting the right product for applications where radiation is a consideration. Many products manufactured by Analog Devices, Inc. have been shown to be radiation tolerant to most tactical radiation environments. Analog Devices, Inc. does not make any claim to maintain or guarantee these levels of radiation tolerance without lot qualification test.

It is the responsibility of the Procuring Activity to screen products from Analog Devices, Inc. for compliance to Nuclear Hardness Critical Items (HCI) specifications.

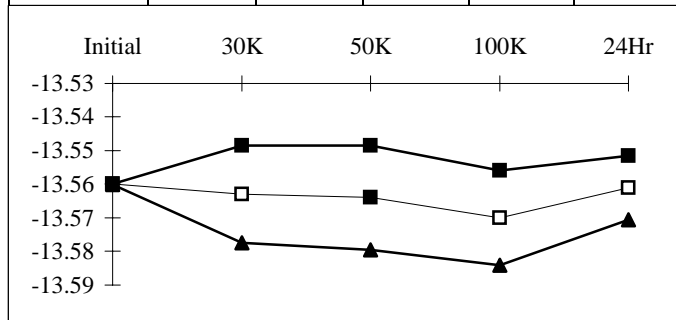
Warning:

Analog Devices, Inc. does not recommend use of this data to qualify other product grades or process levels. Analog Devices, Inc. is not responsible and has no liability for any consequences, and all applicable Warranties are null and void if any Analog Devices product is modified in any way or used outside of normal environmental and operating conditions, including the parameters specified in the corresponding data sheet. Analog Devices, Inc. does not guarantee that wafer manufacturing is the same for all process levels.

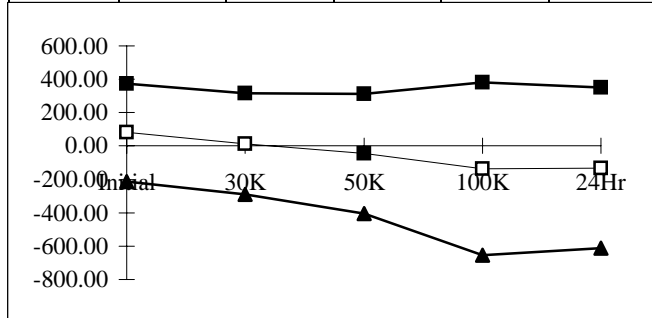
5.0	-VOUT 5K LOAD					V
SN	Initial	30K	50K	100K	24Hr	
110	-13.56	-13.55	-13.55	-13.55	-13.55	
111	-13.56	-13.56	-13.56	-13.56	-13.56	
112	-13.56	-13.56	-13.56	-13.57	-13.56	
113	-13.56	-13.56	-13.57	-13.57	-13.56	
114	-13.56	-13.56	-13.57	-13.57	-13.56	
115	-13.56	-13.56	-13.56	-13.57	-13.56	
116	-13.56	-13.56	-13.56	-13.57	-13.56	
118	-13.56	-13.57	-13.57	-13.57	-13.56	
119	-13.56	-13.56	-13.56	-13.57	-13.56	
120	-13.56	-13.57	-13.56	-13.57	-13.56	
121	-13.56	-13.57	-13.57	-13.58	-13.56	
min	-13.56	-13.57	-13.57	-13.58	-13.56	
max	-13.56	-13.56	-13.56	-13.56	-13.56	
stdev	0.00	0.00	0.01	0.00	0.00	
average	-13.56	-13.56	-13.56	-13.57	-13.56	
+3S	-13.56	-13.55	-13.55	-13.56	-13.56	
-3S	-13.56	-13.58	-13.58	-13.58	-13.56	



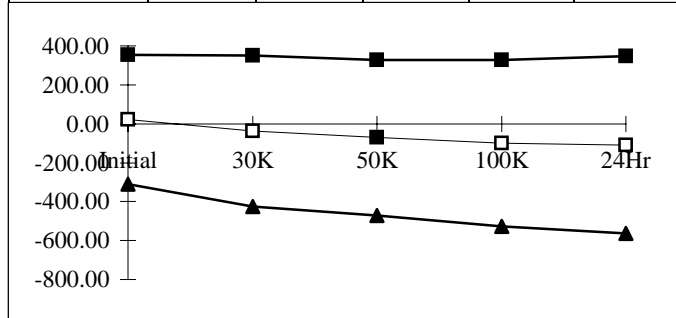
5.1	-VOUT 5K LOAD					V
SN	Initial	30K	50K	100K	24Hr	
110	-13.56	-13.55	-13.55	-13.55	-13.55	
111	-13.56	-13.56	-13.56	-13.56	-13.56	
112	-13.56	-13.56	-13.56	-13.57	-13.56	
113	-13.56	-13.56	-13.57	-13.57	-13.56	
114	-13.56	-13.56	-13.57	-13.57	-13.56	
115	-13.56	-13.56	-13.56	-13.57	-13.56	
116	-13.56	-13.56	-13.56	-13.57	-13.56	
118	-13.56	-13.57	-13.57	-13.57	-13.56	
119	-13.56	-13.56	-13.56	-13.57	-13.56	
120	-13.56	-13.57	-13.56	-13.57	-13.56	
121	-13.56	-13.57	-13.57	-13.58	-13.57	
min	-13.56	-13.57	-13.57	-13.58	-13.57	
max	-13.56	-13.56	-13.56	-13.56	-13.56	
stdev	0.00	0.00	0.01	0.00	0.00	
average	-13.56	-13.56	-13.56	-13.57	-13.56	
+3S	-13.56	-13.55	-13.55	-13.56	-13.55	
-3S	-13.56	-13.58	-13.58	-13.58	-13.57	



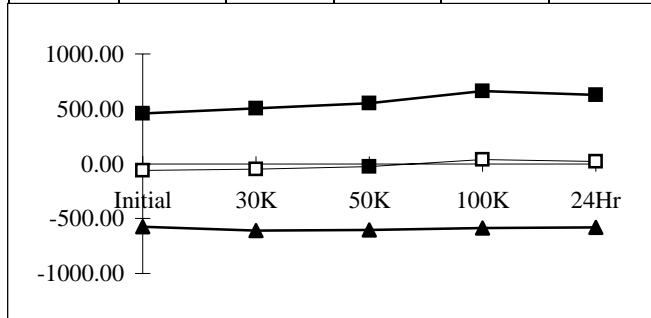
6.0	VOS @ VCM =0V					uV
SN	Initial	30K	50K	100K	24Hr	
110	115.23	125.94	107.41	104.19	112.53	
111	196.55	45.36	-77.81	-273.35	-241.55	
112	61.68	82.13	57.96	41.02	-8.09	
113	180.19	96.85	2.78	-142.91	-112.97	
114	0.70	54.32	39.84	44.47	33.49	
115	140.74	138.64	122.54	98.33	100.35	
116	-116.94	-168.28	-222.28	-239.86	-250.17	
118	11.69	-99.34	-142.27	-251.93	-249.88	
119	53.43	-66.18	-169.95	-345.28	-313.24	
120	123.48	-39.16	-139.26	-326.42	-316.24	
121	155.33	98.23	74.35	27.04	34.68	
min	-116.94	-168.28	-222.28	-345.28	-316.24	
max	196.55	138.64	122.54	98.33	100.35	
stdev	97.56	101.14	119.65	172.75	160.39	
average	80.68	14.26	-45.41	-136.89	-132.36	
+3S	373.35	317.69	313.55	381.37	348.80	
-3S	-211.99	-289.17	-404.37	-655.14	-613.53	



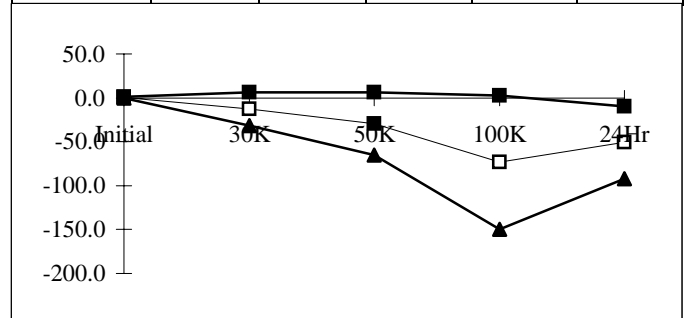
6.1	VOS @ VCM =0V					uV
SN	Initial	30K	50K	100K	24Hr	
110	88.14	126.03	86.17	79.87	85.38	
111	9.29	-47.62	-117.16	-171.36	-211.01	
112	74.85	32.41	-1.80	-18.58	7.02	
113	-40.62	-207.17	-273.11	-312.98	-315.06	
114	54.08	68.69	55.89	44.22	48.90	
115	-29.89	-31.72	-54.91	-72.45	-68.89	
116	158.81	138.88	117.81	119.33	110.21	
118	34.91	-44.62	-63.62	-73.82	-88.50	
119	-191.11	-248.38	-259.22	-271.48	-329.88	
120	197.16	99.51	52.99	-8.35	-31.61	
121	-45.11	-139.26	-169.02	-230.30	-214.65	
min	-191.11	-248.38	-273.11	-312.98	-329.88	
max	197.16	138.88	117.81	119.33	110.21	
stdev	110.60	129.03	133.43	142.29	151.76	
average	22.24	-37.93	-71.21	-99.58	-109.35	
+3S	354.02	349.17	329.08	327.29	345.93	
-3S	-309.55	-425.03	-471.51	-526.45	-564.62	



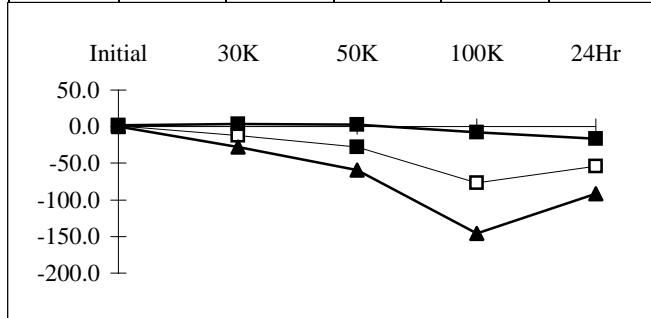
7.0 VOS MATCHING @ VCM=0V uV					
SN	Initial	30K	50K	100K	24Hr
110	-27.09	0.10	-21.24	-24.33	-27.15
111	-187.26	-92.98	-39.35	101.99	30.54
112	13.17	-49.72	-59.76	-59.60	15.10
113	-220.82	-304.02	-275.88	-170.08	-202.09
114	53.38	14.38	16.05	-0.25	15.41
115	-170.63	-170.36	-177.45	-170.78	-169.24
116	275.75	307.17	340.09	359.19	360.38
118	23.22	54.72	78.64	178.11	161.38
119	-244.54	-182.20	-89.27	73.80	-16.64
120	73.68	138.67	192.25	318.08	284.62
121	-200.44	-237.49	-243.37	-257.35	-249.33
min	-244.54	-304.02	-275.88	-257.35	-249.33
max	275.75	307.17	340.09	359.19	360.38
stdev	171.20	186.10	192.16	208.62	201.37
average	-58.45	-52.18	-25.81	37.31	23.01
+3S	455.15	506.13	550.66	663.18	627.13
-3S	-572.04	-610.50	-602.28	-588.55	-581.10



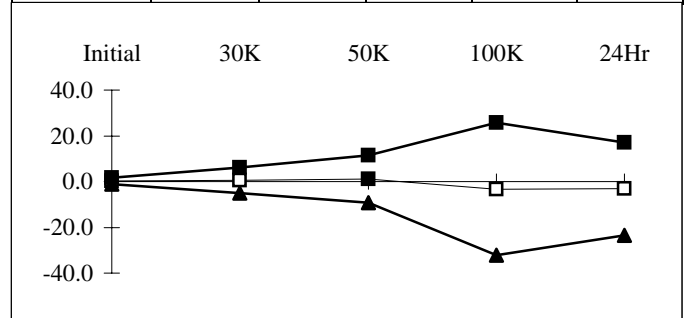
8.0 IOS VCM=0 pA					
SN	Initial	30K	50K	100K	24Hr
110	0.8	0.6	0.8	0.5	0.3
111	0.7	-18.6	-42.7	-97.7	-66.0
112	0.3	-6.0	-15.8	-43.9	-34.1
113	0.4	-15.3	-40.4	-94.4	-61.0
114	0.0	-5.9	-16.1	-45.0	-36.8
115	0.6	-5.1	-14.6	-43.1	-34.3
116	0.9	-7.7	-20.5	-49.8	-40.1
118	0.5	-17.3	-32.9	-77.9	-53.6
119	0.7	-17.3	-39.9	-94.1	-61.5
120	0.7	-22.7	-43.1	-106.5	-70.7
121	0.4	-11.7	-26.2	-82.9	-51.1
min	0.0	-22.7	-43.1	-106.5	-70.7
max	0.9	-5.1	-14.6	-43.1	-34.1
stdev	0.3	6.3	11.9	25.4	13.8
average	0.5	-12.8	-29.2	-73.5	-50.9
+3S	1.3	6.2	6.5	2.7	-9.5
-3S	-0.3	-31.7	-65.0	-149.8	-92.3



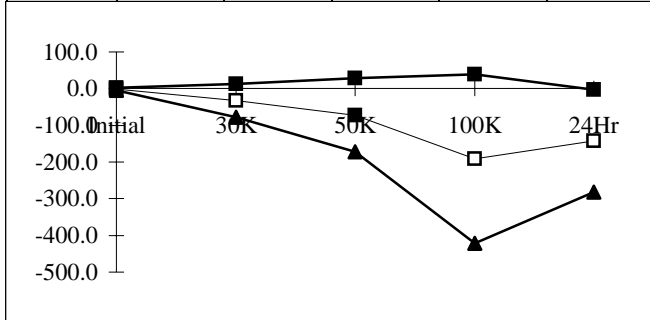
8.1 IOS VCM=0 pA					
SN	Initial	30K	50K	100K	24Hr
110	1.0	0.9	-1.4	0.7	0.6
111	0.4	-15.1	-37.9	-90.3	-61.1
112	1.0	-8.0	-19.8	-60.9	-45.7
113	0.7	-14.5	-36.2	-87.2	-57.7
114	0.9	-4.3	-11.9	-36.3	-30.3
115	0.5	-6.6	-19.4	-59.8	-47.1
116	0.7	-9.6	-21.3	-57.7	-47.4
118	0.8	-16.4	-32.8	-83.4	-57.9
119	0.4	-16.8	-39.4	-100.9	-67.9
120	0.9	-20.9	-40.5	-113.1	-74.8
121	1.2	-10.0	-22.7	-78.9	-50.8
min	0.4	-20.9	-40.5	-113.1	-74.8
max	1.2	-4.3	-11.9	-36.3	-30.3
stdev	0.3	5.3	10.3	23.1	12.6
average	0.8	-12.2	-28.2	-76.9	-54.1
+3S	1.5	3.6	2.6	-7.7	-16.2
-3S	0.0	-28.1	-59.0	-146.0	-92.0



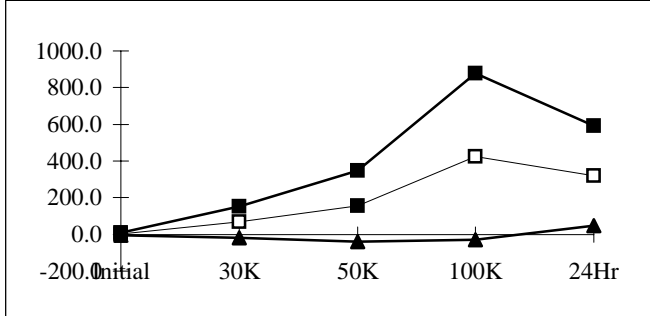
9.0 IOS MATCHING @ VCM=0V pA					
SN	Initial	30K	50K	100K	24Hr
110	0.2	0.4	-2.2	0.2	0.3
111	-0.3	3.4	4.8	7.4	4.9
112	0.7	-2.1	-4.0	-17.0	-11.6
113	0.4	0.9	4.2	7.3	3.4
114	0.9	1.6	4.3	8.7	6.5
115	0.0	-1.6	-4.8	-16.7	-12.8
116	-0.2	-1.9	-0.7	-7.8	-7.3
118	0.4	0.9	0.1	-5.4	-4.4
119	-0.3	0.5	0.5	-6.8	-6.5
120	0.2	1.9	2.6	-6.6	-4.1
121	0.8	1.7	3.5	4.0	0.3
min	-0.3	-2.1	-4.8	-17.0	-12.8
max	0.9	3.4	4.8	8.7	6.5
stdev	0.5	1.8	3.4	9.7	6.7
average	0.3	0.5	1.1	-3.3	-3.2
+3S	1.6	6.0	11.4	25.7	17.0
-3S	-1.1	-5.0	-9.3	-32.3	-23.4



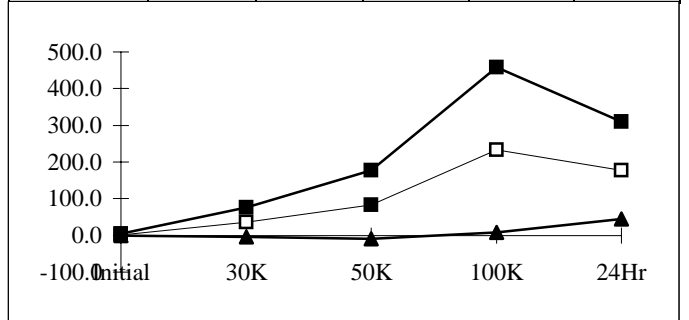
10.0	IB- @VCM=0V				pA
SN	Initial	30K	50K	100K	24Hr
110	-0.7	-0.3	-2.4	-1.8	-1.0
111	-1.6	-43.9	-104.7	-245.1	-174.6
112	-3.3	-12.8	-31.5	-96.8	-82.7
113	-0.9	-40.1	-100.0	-247.8	-177.5
114	1.5	-13.7	-32.0	-96.9	-83.3
115	-1.2	-13.4	-32.2	-99.4	-88.7
116	-0.9	-24.8	-50.1	-132.9	-119.0
118	-3.0	-43.5	-89.9	-217.9	-159.9
119	-2.0	-42.1	-105.1	-261.2	-184.1
120	-0.9	-54.3	-109.5	-294.9	-209.3
121	0.2	-29.4	-65.1	-220.0	-146.7
min	-3.3	-54.3	-109.5	-294.9	-209.3
max	1.5	-12.8	-31.5	-96.8	-82.7
stdev	1.4	15.1	33.4	76.7	46.3
average	-1.2	-31.8	-72.0	-191.3	-142.6
+3S	3.0	13.4	28.1	38.8	-3.7
-3S	-5.4	-77.0	-172.1	-421.4	-281.5



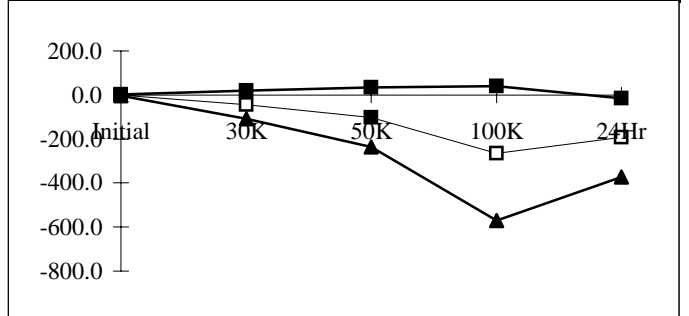
11.0	IB- MATCHING @ VCM=0V				pA
SN	Initial	30K	50K	100K	24Hr
110	1.3	-0.8	6.5	4.4	2.8
111	4.4	89.2	218.6	528.2	381.1
112	5.3	33.9	80.1	245.6	208.4
113	1.9	83.1	209.3	528.5	380.4
114	-0.7	33.1	75.5	227.8	194.1
115	2.9	35.0	81.8	251.9	222.9
116	1.9	52.2	110.9	300.2	270.5
118	6.9	90.4	189.6	477.3	356.1
119	4.7	89.3	220.8	566.9	404.0
120	1.8	112.0	228.0	631.5	452.7
121	1.0	63.8	138.5	483.4	325.0
min	-0.7	33.1	75.5	227.8	194.1
max	6.9	112.0	228.0	631.5	452.7
stdev	2.3	28.5	64.4	151.6	90.4
average	3.0	68.2	155.3	424.1	319.5
+3S	9.9	153.7	348.6	879.0	590.7
-3S	-3.8	-17.3	-38.0	-30.7	48.3



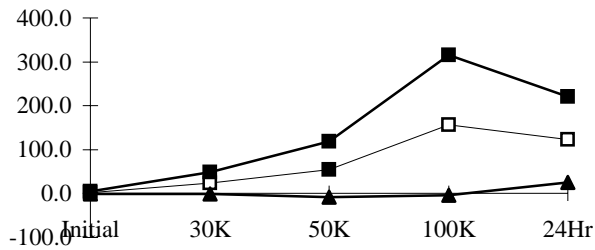
10.1	IB- @VCM=0V				pA
SN	Initial	30K	50K	100K	24Hr
110	0.6	-1.1	4.0	2.6	1.8
111	2.7	45.2	113.8	283.1	206.5
112	2.0	21.1	48.6	148.8	125.6
113	1.0	43.0	109.3	280.8	203.0
114	0.8	19.4	43.5	130.9	110.8
115	1.8	21.6	49.6	152.5	134.1
116	1.0	27.3	60.9	167.3	151.5
118	4.0	46.9	99.7	259.4	196.2
119	2.7	47.2	115.7	305.6	219.9
120	0.9	57.7	118.4	336.5	243.4
121	1.2	34.3	73.4	263.4	178.4
min	0.8	19.4	43.5	130.9	110.8
max	4.0	57.7	118.4	336.5	243.4
stdev	1.1	13.5	31.1	75.1	44.3
average	1.8	36.4	83.3	232.8	176.9
+3S	5.0	76.8	176.5	458.0	309.9
-3S	-1.3	-4.0	-9.9	7.6	44.0



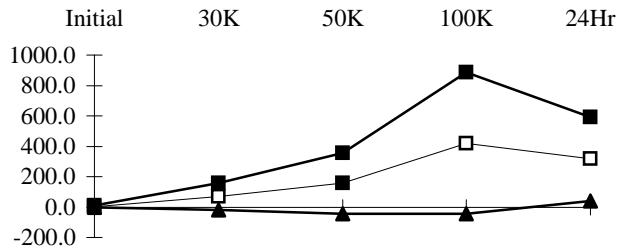
12.0	IB+ CALC. @ VCM=0V				pA
SN	Initial	30K	50K	100K	24Hr
110	0.0	0.3	-1.6	-1.3	-0.8
111	-0.9	-62.5	-147.4	-342.8	-240.7
112	-3.0	-18.8	-47.3	-140.6	-116.8
113	-0.6	-55.4	-140.4	-342.2	-238.5
114	1.5	-19.6	-48.1	-141.9	-120.1
115	-0.6	-18.5	-46.8	-142.4	-123.1
116	0.0	-32.5	-70.6	-182.7	-159.1
118	-2.5	-60.8	-122.9	-295.8	-213.5
119	-1.3	-59.4	-145.0	-355.3	-245.6
120	-0.1	-77.0	-152.6	-401.4	-280.0
121	0.6	-41.1	-91.3	-302.9	-197.7
min	-3.0	-77.0	-152.6	-401.4	-280.0
max	1.5	-18.5	-46.8	-140.6	-116.8
stdev	1.3	21.3	45.2	102.0	59.9
average	-0.7	-44.6	-101.2	-264.8	-193.5
+3S	3.4	19.5	34.5	41.1	-13.9
-3S	-4.7	-108.6	-237.0	-570.7	-373.2



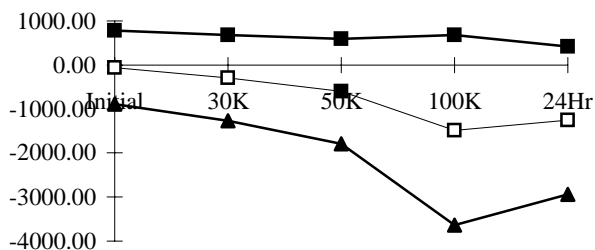
12.1	IB+ CALC. @ VCM=0V				pA
SN	Initial	30K	50K	100K	24Hr
110	1.6	-0.2	2.6	3.3	2.4
111	3.1	30.1	75.9	192.8	145.4
112	3.0	13.0	28.8	87.9	79.9
113	1.7	28.5	73.1	193.6	145.3
114	1.7	15.1	31.7	94.7	80.5
115	2.3	14.9	30.2	92.8	87.0
116	1.7	17.7	39.6	109.7	104.1
118	4.8	30.4	66.9	176.0	138.3
119	3.1	30.4	76.3	204.7	151.9
120	1.8	36.8	77.9	223.5	168.6
121	2.5	24.3	50.7	184.5	127.6
min	1.7	13.0	28.8	87.9	79.9
max	4.8	36.8	77.9	223.5	168.6
stdev	1.0	8.3	21.0	53.2	32.5
average	2.6	24.1	55.1	156.0	122.9
+3S	5.5	49.1	118.2	315.5	220.3
-3S	-0.4	-0.9	-8.0	-3.5	25.5



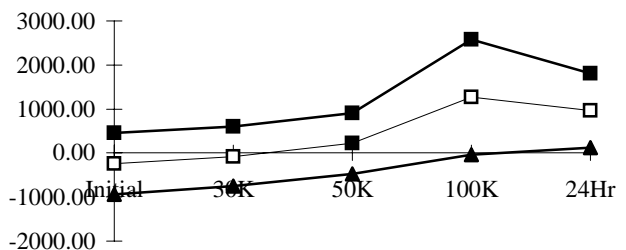
13.0	IB+ MATCHING @ VCM=0V				pA
SN	Initial	30K	50K	100K	24Hr
110	1.6	-0.5	4.3	4.6	3.2
111	4.0	92.6	223.4	535.6	386.0
112	6.1	31.8	76.1	228.5	196.7
113	2.3	83.9	213.5	535.8	383.8
114	0.2	34.7	79.8	236.5	200.6
115	2.9	33.5	77.0	235.2	210.0
116	1.7	50.2	110.2	292.4	263.2
118	7.3	91.3	189.8	471.8	351.8
119	4.4	89.7	221.3	560.0	397.5
120	2.0	113.8	230.6	624.9	448.7
121	1.9	65.4	142.0	487.4	325.3
min	0.2	31.8	76.1	228.5	196.7
max	7.3	113.8	230.6	624.9	448.7
stdev	2.2	29.6	66.3	155.0	92.3
average	3.3	68.7	156.4	420.8	316.4
+3S	9.8	157.6	355.2	885.9	593.3
-3S	-3.2	-20.2	-42.5	-44.3	39.4



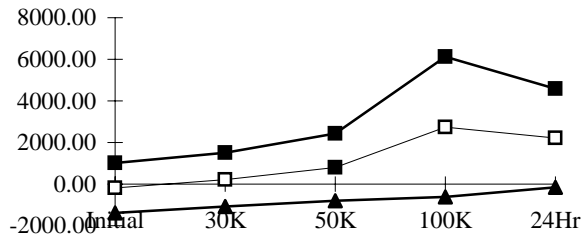
14.0	VOS AT VCM =10V				uV
SN	Initial	30K	50K	100K	24Hr
110	-41.30	-28.92	-41.53	-22.97	-40.24
111	157.87	-248.93	-736.79	-1886.77	-1525.96
112	-171.51	-213.12	-342.42	-754.51	-784.45
113	373.25	53.43	-402.68	-1553.03	-1189.24
114	-83.91	-88.50	-232.42	-640.39	-629.11
115	150.38	91.85	-33.79	-487.72	-497.58
116	-480.41	-630.93	-818.13	-1391.57	-1361.59
118	-150.81	-531.34	-843.79	-1815.21	-1555.35
119	15.05	-335.33	-825.12	-2078.83	-1658.62
120	-496.58	-933.55	-1380.10	-2818.12	-2375.54
121	100.84	-84.71	-324.70	-1358.34	-1019.94
min	-496.58	-933.55	-1380.10	-2818.12	-2375.54
max	373.25	91.85	-33.79	-487.72	-497.58
stdev	278.79	323.99	397.41	720.40	561.71
average	-58.58	-292.11	-593.99	-1478.45	-1259.74
+3S	777.78	679.87	598.23	682.76	425.40
-3S	-894.95	-1264.09	-1786.21	-3639.66	-2944.88



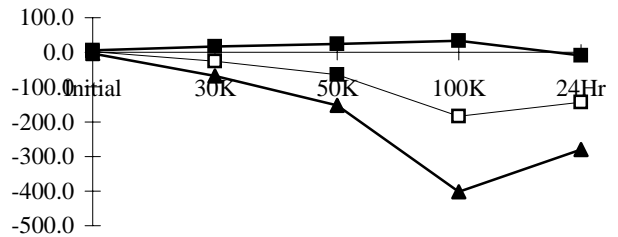
14.1	VOS AT VCM =10V				uV
SN	Initial	30K	50K	100K	24Hr
110	-589.06	-588.39	-610.94	-631.03	-602.42
111	-167.89	43.29	438.12	1641.26	1180.67
112	-470.52	-368.51	-201.79	539.96	437.78
113	-408.97	-292.30	105.73	1299.57	864.80
114	59.01	139.27	300.35	893.31	826.16
115	-6.70	118.88	290.01	1019.65	962.15
116	36.49	187.47	396.07	1142.71	1109.04
118	-600.28	-368.85	-20.80	1122.77	775.42
119	-404.77	-142.74	304.89	1703.12	1137.55
120	-136.57	137.00	522.18	2038.50	1475.08
121	-315.24	-197.22	38.91	1302.08	864.02
min	-600.28	-368.85	-201.79	539.96	437.78
max	59.01	187.47	522.18	2038.50	1475.08
stdev	231.05	223.75	228.55	433.76	280.99
average	-241.54	-74.37	217.37	1270.29	963.27
+3S	451.60	596.87	903.03	2571.58	1806.24
-3S	-934.69	-745.61	-468.30	-30.99	120.29



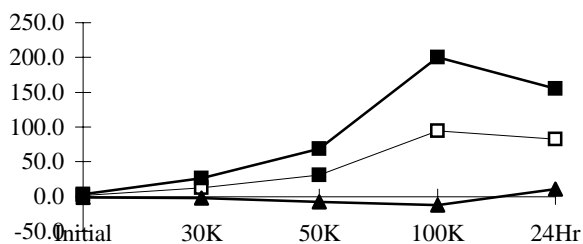
15.0	VOS MATCHING @ VCM=10V					uV
SN	Initial	30K	50K	100K	24Hr	
110	-547.76	-559.47	-569.41	-608.06	-562.18	
111	-325.76	292.22	1174.91	3528.03	2706.63	
112	-299.01	-155.39	140.62	1294.47	1222.23	
113	-782.21	-345.74	508.41	2852.60	2054.05	
114	142.92	227.76	532.77	1533.69	1455.28	
115	-157.08	27.03	323.81	1507.37	1459.72	
116	516.90	818.40	1214.21	2534.28	2470.63	
118	-449.46	162.49	822.99	2937.98	2330.77	
119	-419.82	192.59	1130.01	3781.95	2796.17	
120	360.02	1070.55	1902.28	4856.62	3850.62	
121	-416.08	-112.51	363.61	2660.42	1883.96	
min	-782.21	-345.74	140.62	1294.47	1222.23	
max	516.90	1070.55	1902.28	4856.62	3850.62	
stdev	403.58	434.56	541.98	1123.02	788.92	
average	-182.96	217.74	811.36	2748.74	2223.00	
+3S	1027.79	1521.42	2437.31	6117.81	4589.76	
-3S	-1393.71	-1085.94	-814.59	-620.33	-143.75	



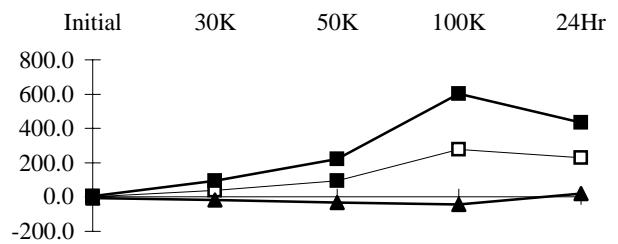
16.0	IOS VCM= 10V					pA
SN	Initial	30K	50K	100K	24Hr	
110	0.4	0.6	1.9	3.8	1.9	
111	1.5	-38.1	-95.8	-241.0	-182.8	
112	-0.4	-11.0	-31.8	-98.1	-91.7	
113	0.4	-32.6	-88.0	-236.2	-177.6	
114	1.4	-7.2	-30.2	-97.5	-88.8	
115	1.4	-9.0	-28.4	-99.6	-92.5	
116	-0.6	-17.3	-41.8	-125.4	-113.2	
118	5.3	-38.4	-77.1	-204.6	-160.0	
119	1.9	-35.3	-93.8	-252.5	-185.1	
120	1.4	-46.4	-98.7	-285.5	-209.1	
121	0.8	-22.9	-56.1	-202.5	-144.6	
min	-0.6	-46.4	-98.7	-285.5	-209.1	
max	5.3	-7.2	-28.4	-97.5	-88.8	
stdev	1.6	14.1	29.5	72.4	45.0	
average	1.3	-25.8	-64.2	-184.3	-144.5	
+3S	6.2	16.6	24.4	32.9	-9.6	
-3S	-3.6	-68.2	-152.8	-401.4	-279.4	



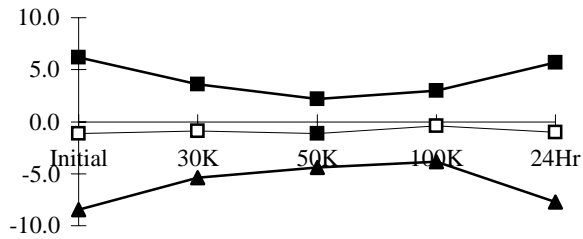
16.1	IOS VCM= 10V					pA
SN	Initial	30K	50K	100K	24Hr	
110	0.5	1.1	0.7	-0.8	2.3	
111	0.8	15.7	41.6	119.8	102.1	
112	1.9	7.4	14.5	48.7	50.6	
113	1.1	14.9	42.5	119.3	99.1	
114	1.9	5.9	16.2	53.9	52.1	
115	1.4	6.9	15.2	52.6	56.7	
116	-0.3	8.6	21.2	63.2	67.7	
118	1.7	15.6	39.5	108.4	94.4	
119	0.2	16.2	42.8	128.0	103.1	
120	1.2	19.0	44.3	139.3	116.1	
121	1.1	12.4	28.5	110.2	86.2	
min	-0.3	5.9	14.5	48.7	50.6	
max	1.9	19.0	44.3	139.3	116.1	
stdev	0.7	4.7	12.8	35.4	24.0	
average	1.1	12.3	30.6	94.3	82.8	
+3S	3.2	26.3	69.0	200.7	154.9	
-3S	-1.0	-1.8	-7.8	-12.0	10.7	



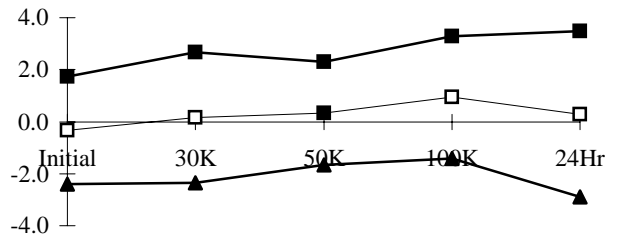
17.0	IOS MATCHING @ VCM=10V					pA
SN	Initial	30K	50K	100K	24Hr	
110	0.0	0.6	-1.2	-4.6	0.4	
111	-0.7	53.8	137.4	360.8	284.9	
112	2.3	18.4	46.4	146.8	142.3	
113	0.7	47.5	130.5	355.5	276.7	
114	0.5	13.1	46.4	151.4	140.9	
115	0.0	15.9	43.7	152.2	149.2	
116	0.3	25.9	63.0	188.6	180.9	
118	-3.6	54.0	116.6	313.0	254.3	
119	-1.7	51.5	136.6	380.5	288.2	
120	-0.2	65.4	143.0	424.8	325.3	
121	0.3	35.3	84.6	312.8	230.8	
min	-3.6	13.1	43.7	146.8	140.9	
max	2.3	65.4	143.0	424.8	325.3	
stdev	1.6	18.8	42.2	107.7	68.9	
average	-0.2	38.1	94.8	278.6	227.4	
+3S	4.5	94.4	221.5	601.8	434.1	
-3S	-4.9	-18.3	-31.9	-44.5	20.6	



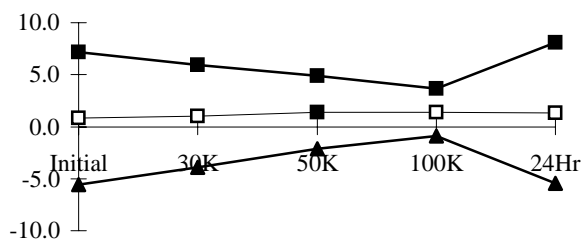
18.0	IB- @VCM=10V				pA
SN	Initial	30K	50K	100K	24Hr
110	0.7	0.6	0.1	-5.3	-2.3
111	-1.1	0.6	-0.7	-1.8	0.0
112	1.3	-0.6	0.2	-0.6	2.2
113	-0.8	-0.1	-2.5	-1.6	-0.9
114	-1.5	-4.0	-0.6	0.8	0.5
115	-1.3	-1.8	0.2	0.8	-0.9
116	1.1	-0.7	-1.4	0.6	-2.0
118	-7.0	0.9	-2.4	-1.3	-3.0
119	-0.6	-2.5	-0.2	-0.5	-1.1
120	-2.8	0.1	-1.0	1.0	0.8
121	1.1	-0.8	-2.7	-1.7	-5.8
min	-7.0	-4.0	-2.7	-1.8	-5.8
max	1.3	0.9	0.2	1.0	2.2
stdev	2.4	1.5	1.1	1.1	2.2
average	-1.2	-0.9	-1.1	-0.4	-1.0
+3S	6.2	3.6	2.2	3.0	5.7
-3S	-8.5	-5.4	-4.4	-3.9	-7.7



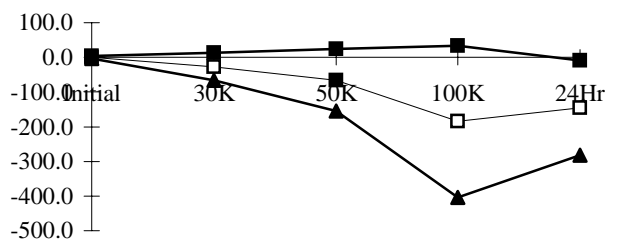
18.1	IB- @VCM=10V				pA
SN	Initial	30K	50K	100K	24Hr
110	0.70	0.00	-0.60	0.90	-1.70
111	-1.3	-0.4	0.9	0.1	1.3
112	0.0	1.0	0.2	0.9	-0.9
113	0.2	0.6	-0.7	0.6	0.2
114	-0.6	0.2	0.6	1.9	0.2
115	0.1	-1.1	0.5	0.9	-0.6
116	1.0	0.7	0.1	1.7	0.4
118	-1.2	0.7	-0.6	-0.4	-0.2
119	-0.7	0.7	0.0	1.9	2.5
120	-0.5	0.6	1.0	1.4	0.9
121	-0.4	-1.4	1.3	0.4	-0.9
min	-1.3	-1.4	-0.7	-0.4	-0.9
max	1.0	1.0	1.3	1.9	2.5
stdev	0.7	0.8	0.7	0.8	1.1
average	-0.3	0.2	0.3	0.9	0.3
+3S	1.7	2.7	2.3	3.3	3.5
-3S	-2.4	-2.4	-1.7	-1.4	-2.9



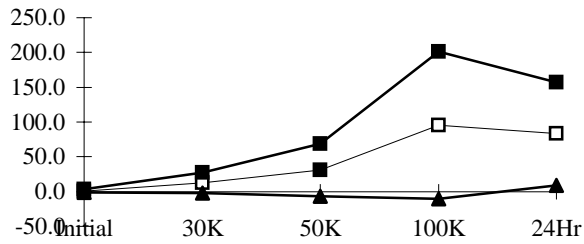
19.0	IB- MATCHING @ VCM =10V				pA
SN	Initial	30K	50K	100K	24Hr
110	0.0	-0.6	-0.7	6.2	0.6
111	-0.2	-1.0	1.5	1.8	1.3
112	-1.3	1.6	0.0	1.5	-3.1
113	1.0	0.7	1.8	2.2	1.1
114	0.8	4.2	1.2	1.1	-0.3
115	1.4	0.7	0.2	0.2	0.3
116	-0.1	1.3	1.4	1.1	2.4
118	5.8	-0.2	1.8	0.8	2.8
119	-0.2	3.2	0.2	2.4	3.6
120	2.4	0.5	2.0	0.5	0.2
121	-1.5	-0.7	4.0	2.2	4.9
min	-1.5	-1.0	0.0	0.2	-3.1
max	5.8	4.2	4.0	2.4	4.9
stdev	2.1	1.6	1.2	0.8	2.3
average	0.8	1.0	1.4	1.4	1.3
+3S	7.2	6.0	4.9	3.7	8.1
-3S	-5.6	-3.9	-2.1	-0.9	-5.5



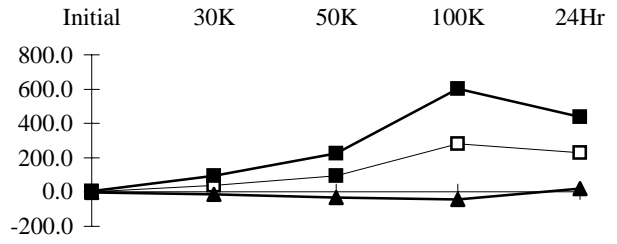
20.0	IB+ CALC. @ VCM =10V				pA
SN	Initial	30K	50K	100K	24Hr
110	1.2	1.2	2.0	-1.5	-0.4
111	0.5	-37.5	-96.4	-242.8	-182.8
112	0.8	-11.6	-31.6	-98.7	-89.5
113	-0.4	-32.7	-90.4	-237.8	-178.6
114	-0.1	-11.3	-30.7	-96.7	-88.3
115	0.1	-10.8	-28.2	-98.8	-93.5
116	0.5	-17.9	-43.1	-124.8	-115.2
118	-1.7	-37.5	-79.5	-205.9	-162.9
119	1.3	-37.8	-94.1	-253.0	-186.2
120	-1.4	-46.3	-99.8	-284.6	-208.4
121	1.9	-23.7	-58.8	-204.3	-150.4
min	-1.7	-46.3	-99.8	-284.6	-208.4
max	1.9	-10.8	-28.2	-96.7	-88.3
stdev	1.1	13.3	29.9	72.9	45.3
average	0.2	-26.7	-65.3	-184.7	-145.6
+3S	3.5	13.1	24.5	33.8	-9.7
-3S	-3.2	-66.5	-155.1	-403.3	-281.4



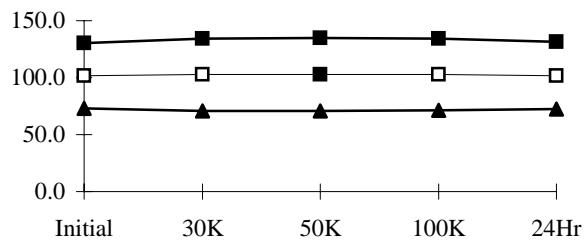
20.1	IB+ CALC. @ VCM =10V				pA
SN	Initial	30K	50K	100K	24Hr
110	1.2	1.1	0.1	0.0	0.6
111	-0.5	15.3	42.5	119.9	103.5
112	1.8	8.4	14.7	49.6	49.8
113	1.3	15.6	41.8	119.9	99.3
114	1.2	6.1	16.9	55.8	52.3
115	1.5	5.8	15.7	53.5	56.1
116	0.7	9.3	21.3	64.9	68.1
118	0.6	16.3	38.9	107.9	94.2
119	-0.5	16.9	42.7	129.9	105.6
120	0.7	19.6	45.2	140.7	117.1
121	0.7	10.9	29.8	110.6	85.3
min	-0.5	5.8	14.7	49.6	49.8
max	1.8	19.6	45.2	140.7	117.1
stdev	0.8	4.9	12.7	35.2	24.7
average	0.8	12.4	31.0	95.3	83.1
+3S	3.1	27.2	68.9	201.0	157.2
-3S	-1.6	-2.3	-7.0	-10.5	9.1



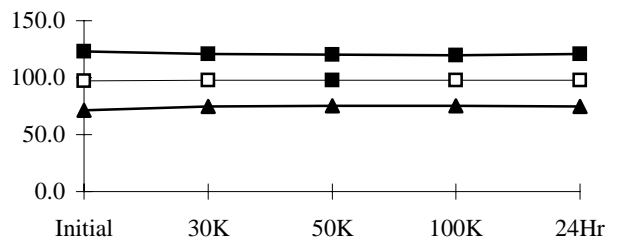
21.0	IB+ MATCHING @ VCM =10V				pA
SN	Initial	30K	50K	100K	24Hr
110	0.0	-0.1	-1.9	1.5	1.0
111	-0.9	52.8	139.0	362.7	286.2
112	1.0	20.0	46.4	148.3	139.3
113	1.7	48.2	132.3	357.7	277.8
114	1.3	17.4	47.6	152.5	140.5
115	1.4	16.6	43.9	152.3	149.6
116	0.2	27.2	64.4	189.7	183.3
118	2.3	53.8	118.4	313.8	257.1
119	-1.8	54.7	136.8	382.9	291.8
120	2.2	65.9	145.0	425.3	325.4
121	-1.2	34.6	88.6	314.9	235.7
min	-1.8	16.6	43.9	148.3	139.3
max	2.3	65.9	145.0	425.3	325.4
stdev	1.5	18.1	42.6	108.0	69.9
average	0.6	39.1	96.2	280.0	228.7
+3S	5.0	93.5	223.9	604.0	438.4
-3S	-3.8	-15.2	-31.4	-44.0	18.9



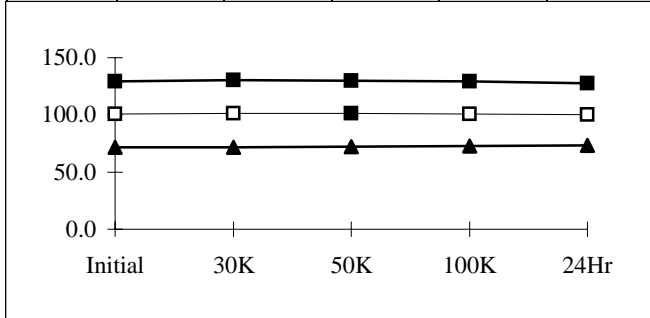
22.0	CMRR @ VCM=±11V				dB
SN	Initial	30K	50K	100K	24Hr
110	97.1	97.5	97.6	97.6	97.5
111	108.4	110.2	110.7	110.5	108.8
112	98.3	98.8	98.8	98.8	98.9
113	98.4	99.0	98.8	98.8	99.3
114	99.6	99.1	99.2	99.0	98.9
115	116.0	118.5	117.1	115.8	115.1
116	91.9	92.5	92.7	92.4	92.3
118	95.4	96.2	96.3	96.1	95.9
119	108.9	109.9	110.8	111.1	109.0
120	85.8	86.0	86.1	86.2	86.0
121	112.1	116.5	117.5	117.6	115.4
min	85.8	86.0	86.1	86.2	86.0
max	116.0	118.5	117.5	117.6	115.4
stdev	9.6	10.6	10.6	10.5	9.8
average	101.5	102.7	102.8	102.6	102.0
+3S	130.2	134.5	134.7	134.1	131.3
-3S	72.8	70.8	70.9	71.2	72.6



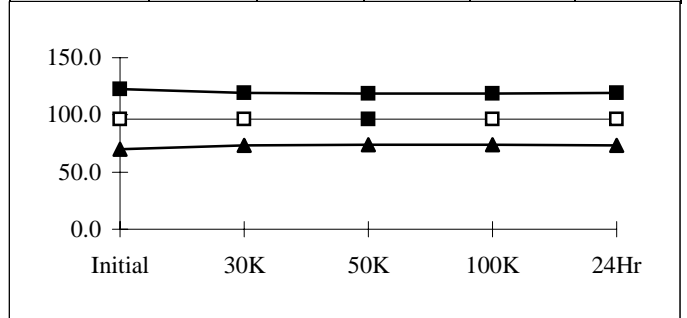
22.1	CMRR @ VCM=±11V				dB
SN	Initial	30K	50K	100K	24Hr
110	87.2	87.5	87.4	87.5	87.5
111	94.4	95.0	95.1	95.2	95.1
112	89.5	90.4	90.5	90.4	90.3
113	92.8	94.5	94.7	94.5	94.2
114	110.8	109.9	109.2	108.2	108.9
115	111.6	106.8	106.9	107.7	108.0
116	104.0	106.8	107.1	106.1	106.4
118	87.2	88.0	87.9	87.9	87.8
119	97.4	99.4	99.5	99.5	99.3
120	91.1	92.0	92.0	92.1	91.9
121	93.5	94.6	94.6	94.6	94.5
min	87.2	88.0	87.9	87.9	87.8
max	111.6	109.9	109.2	108.2	108.9
stdev	8.7	7.6	7.6	7.4	7.6
average	97.2	97.7	97.8	97.6	97.6
+3S	123.2	120.6	120.4	119.8	120.6
-3S	71.2	74.8	75.1	75.5	74.7



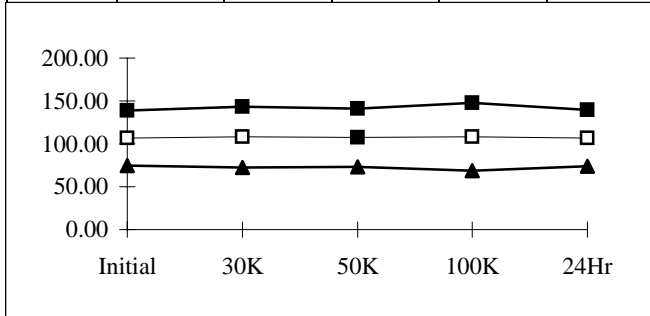
23.0	CMRR @ VCM=±10V				dB
	SN	Initial	30K	50K	
110	96.3	96.4	96.3	96.4	96.4
111	107.5	108.0	108.7	108.6	106.8
112	97.4	97.7	97.7	97.6	97.7
113	97.6	98.4	98.3	98.3	98.7
114	98.7	98.0	98.1	97.8	97.7
115	115.5	114.8	113.9	112.2	112.1
116	91.0	91.6	91.6	91.4	91.4
118	94.6	95.1	95.3	95.0	94.8
119	108.0	108.4	108.7	108.6	106.9
120	84.9	85.1	85.2	85.3	85.1
121	111.1	113.5	113.2	113.6	112.8
min	84.9	85.1	85.2	85.3	85.1
max	115.5	114.8	113.9	113.6	112.8
stdev	9.6	9.7	9.6	9.4	9.1
average	100.6	101.1	101.1	100.8	100.4
+3S	129.5	130.3	129.9	129.2	127.6
-3S	71.8	71.9	72.2	72.5	73.2



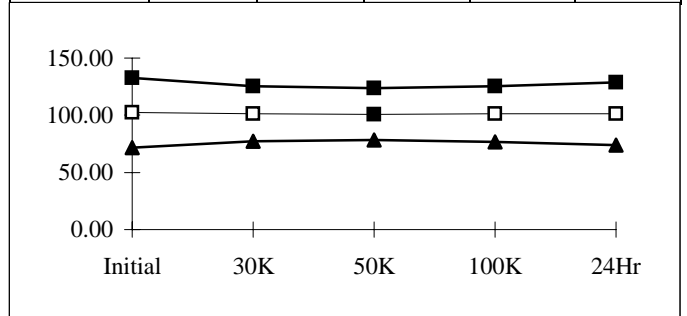
23.1	CMRR @ VCM=±10V				dB
	SN	Initial	30K	50K	
110	86.4	86.4	86.4	86.4	86.4
111	93.5	93.7	93.8	93.8	93.7
112	88.7	89.3	89.3	89.3	89.2
113	92.0	93.2	93.3	93.1	93.0
114	110.0	106.3	105.7	105.0	105.7
115	111.2	109.4	108.5	109.6	110.1
116	103.1	104.2	104.3	103.7	103.5
118	86.4	86.9	86.9	86.9	86.8
119	96.5	97.6	97.7	97.9	97.6
120	90.3	90.8	90.8	90.9	90.7
121	92.7	93.3	93.4	93.3	93.2
min	86.4	86.9	86.9	86.9	86.8
max	111.2	109.4	108.5	109.6	110.1
stdev	8.7	7.7	7.4	7.5	7.7
average	96.4	96.5	96.4	96.4	96.4
+3S	122.6	119.5	118.6	118.8	119.4
-3S	70.2	73.5	74.1	73.9	73.3



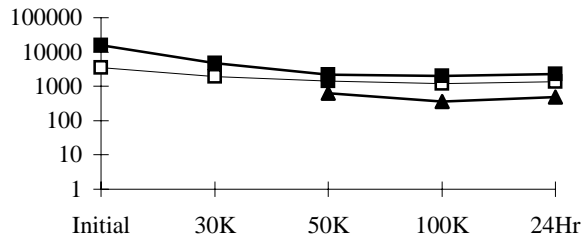
24.0	PSRR @ ±4.5V TO ±18V				dB
	SN	Initial	30K	50K	
110	102.41	102.22	103.09	102.95	102.88
111	114.61	112.92	112.08	114.85	113.13
112	100.96	101.73	100.69	100.96	100.87
113	101.24	102.61	102.54	102.48	102.81
114	106.67	106.37	104.96	104.87	104.87
115	124.29	128.05	122.68	135.38	125.84
116	96.42	97.09	96.79	96.82	96.66
118	101.03	100.96	100.90	101.32	101.09
119	115.60	115.12	117.72	114.86	111.33
120	90.47	90.56	90.66	90.96	90.68
121	117.57	123.37	124.13	120.87	121.44
min	90.47	90.56	90.66	90.96	90.68
max	124.29	128.05	124.13	135.38	125.84
stdev	10.71	11.82	11.31	13.16	10.99
average	106.89	107.88	107.32	108.34	106.87
+3S	139.03	143.33	141.25	147.81	139.85
-3S	74.75	72.43	73.38	68.87	73.90



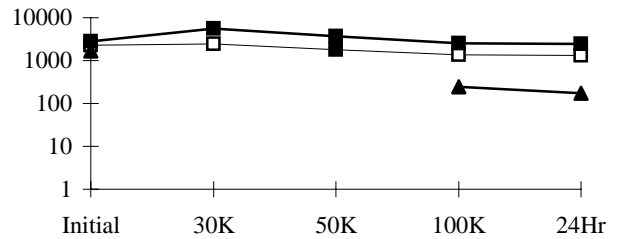
24.1	PSRR @ ±4.5V TO ±18V				dB
	SN	Initial	30K	50K	
110	90.78	90.38	90.50	90.50	90.45
111	100.33	99.31	99.50	100.04	99.70
112	92.82	93.01	93.26	92.93	93.04
113	96.23	97.35	97.17	97.07	96.66
114	123.41	114.58	110.64	111.33	111.33
115	114.77	112.92	114.59	116.01	121.43
116	107.44	107.69	107.34	107.81	105.59
118	91.01	91.34	91.20	91.13	91.06
119	101.40	101.73	101.79	101.79	101.49
120	96.08	96.09	95.97	95.81	95.92
121	98.11	98.33	98.29	98.39	98.31
min	91.01	91.34	91.20	91.13	91.06
max	123.41	114.58	114.59	116.01	121.43
stdev	10.23	8.00	7.63	8.10	9.18
average	102.16	101.24	100.98	101.23	101.45
+3S	132.86	125.23	123.86	125.54	129.00
-3S	71.46	77.24	78.09	76.92	73.90



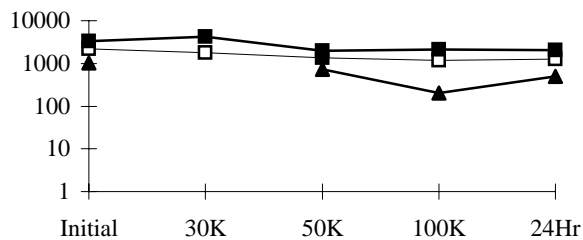
25.0	AVOL @ RL=10K				V/mV
SN	Initial	30K	50K	100K	24Hr
110	2127	2295	2399	3245	3868
111	2212	2244	1526	1141	1344
112	14824	1638	1651	838	1055
113	2460	2172	1723	1473	1144
114	2474	3125	1273	1061	1830
115	1781	1451	1156	1684	1151
116	1913	854	1224	892	1820
118	2212	1372	1618	1226	1599
119	2163	1425	899	1028	1246
120	2113	1315	1527	1086	1069
121	2555	3752	1363	1522	1416
min	1781	854	899	838	1055
max	14824	3752	1723	1684	1830
stdev	3997	902	259	280	293
average	3471	1935	1396	1195	1367
+3S	15460	4641	2174	2034	2247
-3S	-8519	-771	618	356	488



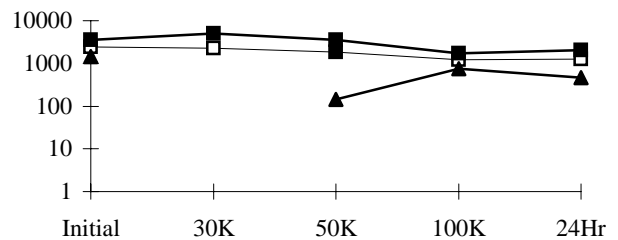
25.1	AVOL @ RL=10K				V/mV
SN	Initial	30K	50K	100K	24Hr
110	2186	2416	3414	1516	1890
111	2159	2376	1171	702	1066
112	2310	2571	2449	1228	2187
113	2225	4103	1581	1744	1202
114	1882	1494	2404	1863	1086
115	2164	1359	1700	1238	1554
116	2224	1972	1280	1971	1133
118	2578	4232	1515	1349	1209
119	2277	1425	1898	1302	1061
120	2238	2669	2987	1290	921
121	2533	2433	913	1138	1563
min	1882	1359	913	702	921
max	2578	4232	2987	1971	2187
stdev	195	1020	649	379	375
average	2259	2463	1790	1383	1298
+3S	2845	5522	3738	2519	2424
-3S	1673	-596	-158	246	172



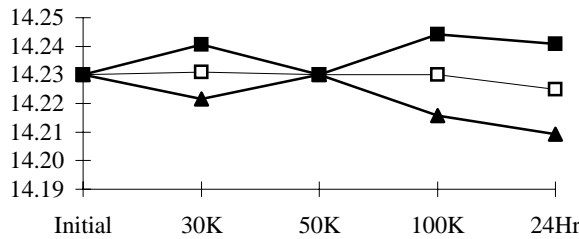
26.0	AVOL @ RL=5K				V/mV
SN	Initial	30K	50K	100K	24Hr
110	2387	1907	2007	3528	3197
111	2393	2021	1183	1151	1419
112	1605	1638	1759	901	932
113	2486	3382	1563	1847	1101
114	2534	2588	1202	960	1533
115	1722	1396	1352	1617	1107
116	1771	803	1235	868	1757
118	2009	1415	1537	1082	1550
119	2225	1141	1065	988	1157
120	2145	1083	1328	1036	1132
121	2756	2534	1298	1164	1138
min	1605	803	1065	868	932
max	2756	3382	1759	1847	1757
stdev	385	816	209	320	263
average	2165	1800	1352	1161	1283
+3S	3320	4248	1981	2123	2073
-3S	1010	-648	724	200	493



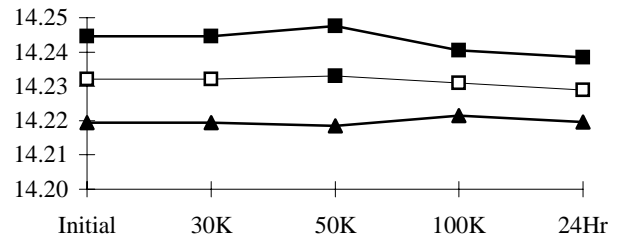
26.1	AVOL @ RL=5K				V/mV
SN	Initial	30K	50K	100K	24Hr
110	2331	3300	2861	1759	1563
111	2266	2492	1195	936	1104
112	2475	2001	1909	1307	1529
113	2478	2708	1499	1363	1122
114	1901	1363	2638	1359	1151
115	3240	1332	1651	1013	1779
116	2469	1527	1331	1371	1102
118	2528	4276	1415	1371	1113
119	2644	1174	2282	1332	1315
120	2198	2855	2764	1165	879
121	2515	2588	1507	1167	1477
min	1901	1174	1195	936	879
max	3240	4276	2764	1371	1779
stdev	344	956	558	160	266
average	2471	2232	1819	1238	1257
+3S	3505	5099	3494	1719	2056
-3S	1438	-636	144	757	458



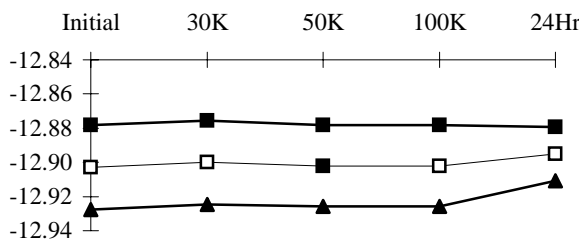
27.0	+VOUT @ RL=10K				V
SN	Initial	30K	50K	100K	24Hr
110	14.23	14.23	14.23	14.23	14.23
111	14.23	14.23	14.23	14.22	14.22
112	14.23	14.23	14.23	14.23	14.22
113	14.23	14.23	14.23	14.23	14.23
114	14.23	14.23	14.23	14.23	14.23
115	14.23	14.23	14.23	14.23	14.22
116	14.23	14.23	14.23	14.23	14.23
118	14.23	14.23	14.23	14.23	14.23
119	14.23	14.23	14.23	14.23	14.22
120	14.23	14.23	14.23	14.23	14.22
121	14.23	14.24	14.23	14.24	14.23
min	14.23	14.23	14.23	14.22	14.22
max	14.23	14.24	14.23	14.24	14.23
stdev	0.00	0.00	0.00	0.00	0.01
average	14.23	14.23	14.23	14.23	14.23
+3S	14.23	14.24	14.23	14.24	14.24
-3S	14.23	14.22	14.23	14.22	14.21



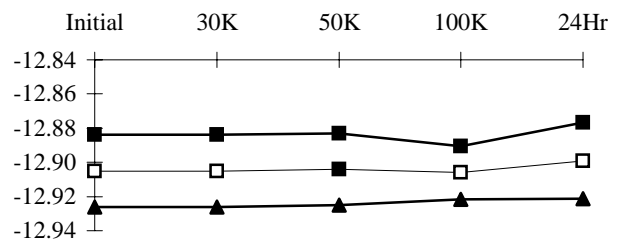
27.1	+VOUT @ RL=10K				V
SN	Initial	30K	50K	100K	24Hr
110	14.23	14.23	14.23	14.23	14.23
111	14.23	14.23	14.23	14.23	14.22
112	14.23	14.23	14.23	14.23	14.23
113	14.23	14.23	14.24	14.23	14.23
114	14.24	14.23	14.24	14.23	14.23
115	14.23	14.23	14.23	14.23	14.23
116	14.23	14.23	14.23	14.23	14.23
118	14.23	14.24	14.23	14.23	14.23
119	14.23	14.23	14.23	14.23	14.23
120	14.23	14.23	14.23	14.23	14.23
121	14.24	14.24	14.24	14.24	14.23
min	14.23	14.23	14.23	14.23	14.22
max	14.24	14.24	14.24	14.24	14.23
stdev	0.00	0.00	0.00	0.00	0.00
average	14.23	14.23	14.23	14.23	14.23
+3S	14.24	14.24	14.25	14.24	14.24
-3S	14.22	14.22	14.22	14.22	14.22



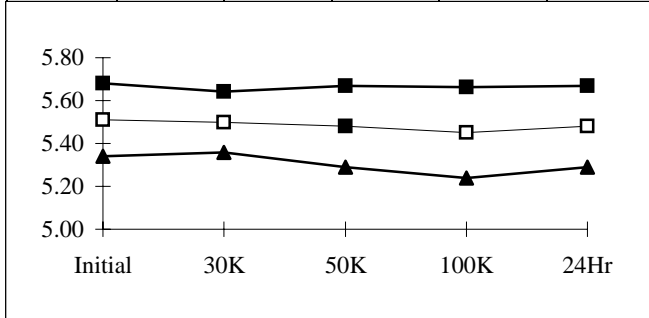
28.0	-VOUT @ RL=10K				V
SN	Initial	30K	50K	100K	24Hr
110	-12.90	-12.90	-12.90	-12.90	-12.90
111	-12.90	-12.90	-12.90	-12.90	-12.89
112	-12.90	-12.90	-12.90	-12.90	-12.89
113	-12.89	-12.89	-12.90	-12.89	-12.89
114	-12.90	-12.89	-12.89	-12.89	-12.89
115	-12.91	-12.90	-12.90	-12.90	-12.90
116	-12.91	-12.91	-12.91	-12.91	-12.90
118	-12.91	-12.91	-12.91	-12.91	-12.90
119	-12.91	-12.90	-12.91	-12.91	-12.90
120	-12.91	-12.91	-12.91	-12.91	-12.90
121	-12.89	-12.89	-12.89	-12.90	-12.89
min	-12.91	-12.91	-12.91	-12.91	-12.90
max	-12.89	-12.89	-12.89	-12.89	-12.89
stdev	0.01	0.01	0.01	0.01	0.01
average	-12.90	-12.90	-12.90	-12.90	-12.90
+3S	-12.88	-12.88	-12.88	-12.88	-12.88
-3S	-12.93	-12.92	-12.93	-12.93	-12.91



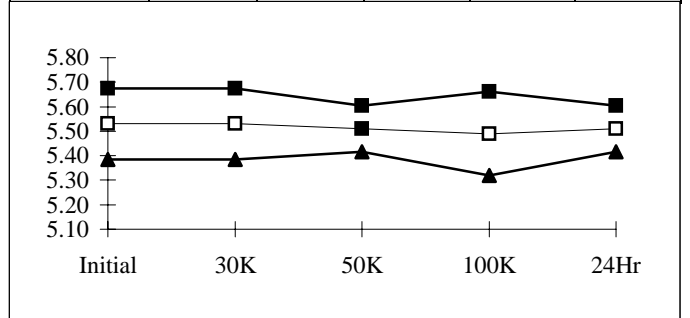
28.1	-VOUT @ RL=10K				V
SN	Initial	30K	50K	100K	24Hr
110	-12.90	-12.90	-12.90	-12.90	-12.90
111	-12.90	-12.90	-12.90	-12.90	-12.90
112	-12.91	-12.90	-12.90	-12.91	-12.90
113	-12.90	-12.90	-12.90	-12.90	-12.89
114	-12.90	-12.90	-12.90	-12.90	-12.89
115	-12.91	-12.90	-12.91	-12.91	-12.90
116	-12.91	-12.91	-12.91	-12.91	-12.90
118	-12.91	-12.92	-12.91	-12.91	-12.91
119	-12.91	-12.91	-12.91	-12.91	-12.90
120	-12.91	-12.91	-12.91	-12.91	-12.91
121	-12.89	-12.90	-12.89	-12.90	-12.89
min	-12.91	-12.92	-12.91	-12.91	-12.91
max	-12.89	-12.90	-12.89	-12.90	-12.89
stdev	0.01	0.01	0.01	0.01	0.01
average	-12.91	-12.91	-12.90	-12.91	-12.90
+3S	-12.88	-12.88	-12.88	-12.89	-12.88
-3S	-12.93	-12.93	-12.92	-12.92	-12.92



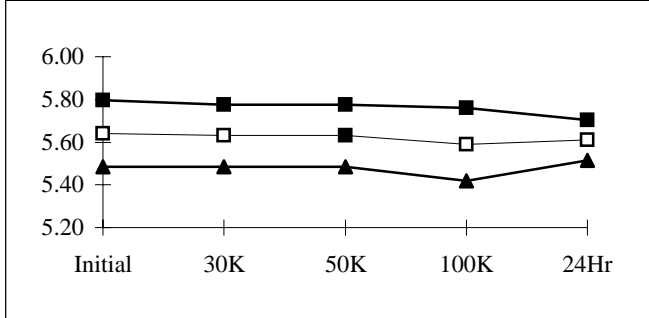
29.0	+ SLEW RATE				v/uS
	SN	Initial	30K	50K	100K
110	5.50	5.50	5.50	5.60	5.60
111	5.50	5.50	5.40	5.40	5.40
112	5.40	5.40	5.40	5.40	5.50
113	5.60	5.50	5.50	5.50	5.50
114	5.60	5.60	5.60	5.60	5.60
115	5.50	5.50	5.50	5.50	5.50
116	5.50	5.50	5.50	5.40	5.50
118	5.50	5.50	5.50	5.40	5.50
119	5.50	5.50	5.50	5.40	5.40
120	5.50	5.50	5.40	5.40	5.40
121	5.50	5.50	5.50	5.50	5.50
min	5.40	5.40	5.40	5.40	5.40
max	5.60	5.60	5.60	5.60	5.60
stdev	0.06	0.05	0.06	0.07	0.06
average	5.51	5.50	5.48	5.45	5.48
+3S	5.68	5.64	5.67	5.66	5.67
-3S	5.34	5.36	5.29	5.24	5.29



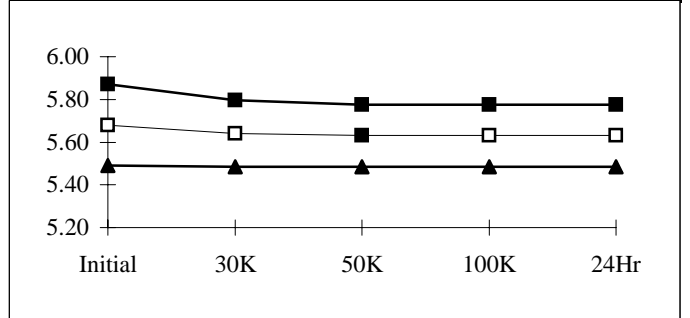
29.1	+ SLEW RATE				v/uS
	SN	Initial	30K	50K	100K
110	5.50	5.60	5.60	5.60	5.60
111	5.50	5.50	5.50	5.40	5.50
112	5.50	5.50	5.50	5.50	5.50
113	5.60	5.60	5.50	5.50	5.50
114	5.60	5.60	5.60	5.60	5.60
115	5.50	5.50	5.50	5.50	5.50
116	5.50	5.50	5.50	5.50	5.50
118	5.50	5.50	5.50	5.50	5.50
119	5.50	5.50	5.50	5.50	5.50
120	5.50	5.50	5.50	5.40	5.50
121	5.60	5.60	5.50	5.50	5.50
min	5.50	5.50	5.50	5.40	5.50
max	5.60	5.60	5.60	5.60	5.60
stdev	0.05	0.05	0.03	0.06	0.03
average	5.53	5.53	5.51	5.49	5.51
+3S	5.67	5.67	5.60	5.66	5.60
-3S	5.39	5.39	5.42	5.32	5.42



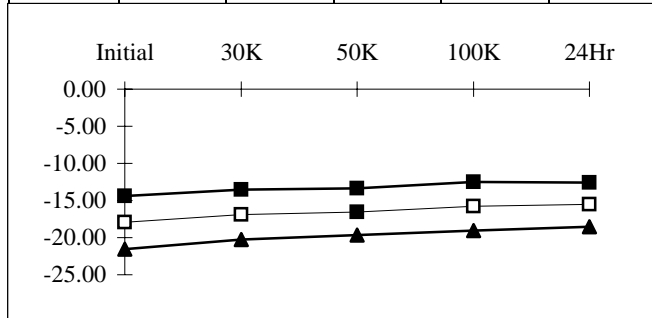
30.0	- SLEW RATE				v/uS
	SN	Initial	30K	50K	100K
110	5.70	5.70	5.70	5.70	5.70
111	5.60	5.60	5.60	5.50	5.60
112	5.60	5.60	5.60	5.60	5.60
113	5.70	5.70	5.70	5.60	5.60
114	5.70	5.70	5.70	5.70	5.70
115	5.60	5.60	5.60	5.60	5.60
116	5.60	5.60	5.60	5.60	5.60
118	5.60	5.60	5.60	5.60	5.60
119	5.70	5.60	5.60	5.60	5.60
120	5.60	5.60	5.60	5.50	5.60
121	5.70	5.70	5.70	5.60	5.60
min	5.60	5.60	5.60	5.50	5.60
max	5.70	5.70	5.70	5.70	5.70
stdev	0.05	0.05	0.05	0.06	0.03
average	5.64	5.63	5.63	5.59	5.61
+3S	5.79	5.77	5.77	5.76	5.70
-3S	5.49	5.49	5.49	5.42	5.52



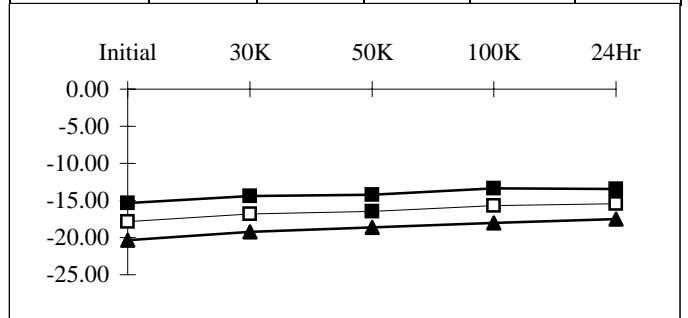
30.1	- SLEW RATE				v/uS
	SN	Initial	30K	50K	100K
110	5.70	5.70	5.70	5.70	5.70
111	5.70	5.60	5.60	5.60	5.60
112	5.60	5.60	5.60	5.60	5.60
113	5.80	5.70	5.70	5.70	5.70
114	5.70	5.70	5.70	5.70	5.70
115	5.60	5.60	5.60	5.60	5.60
116	5.60	5.60	5.60	5.60	5.60
118	5.70	5.70	5.60	5.60	5.60
119	5.70	5.60	5.60	5.60	5.60
120	5.70	5.60	5.60	5.60	5.60
121	5.70	5.70	5.70	5.70	5.70
min	5.60	5.60	5.60	5.60	5.60
max	5.80	5.70	5.70	5.70	5.70
stdev	0.06	0.05	0.05	0.05	0.05
average	5.68	5.64	5.63	5.63	5.63
+3S	5.87	5.79	5.77	5.77	5.77
-3S	5.49	5.49	5.49	5.49	5.49



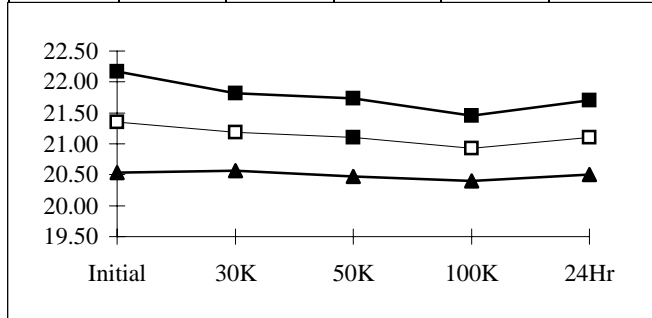
31.0	ISC-				mA
	SN	Initial	30K	50K	100K
110	-17.5	-17.3	-17.4	-17.4	-17.4
111	-16.8	-15.6	-15.4	-14.5	-14.3
112	-17.2	-16.1	-16.0	-15.4	-15.2
113	-19.0	-17.5	-17.2	-16.3	-16.0
114	-19.5	-18.2	-17.9	-17.1	-16.9
115	-17.0	-16.1	-15.8	-15.3	-15.1
116	-17.1	-16.3	-16.0	-15.3	-15.2
118	-17.9	-17.1	-16.5	-15.6	-15.4
119	-17.7	-16.5	-16.2	-15.3	-15.1
120	-17.1	-16.2	-15.6	-14.8	-14.7
121	-20.2	-19.2	-18.6	-18.1	-17.5
min	-20.2	-19.2	-18.6	-18.1	-17.5
max	-16.8	-15.6	-15.4	-14.5	-14.3
stdev	1.20	1.12	1.05	1.10	0.99
average	-17.95	-16.88	-16.52	-15.77	-15.54
+3S	-14.36	-13.51	-13.36	-12.47	-12.58
-3S	-21.54	-20.25	-19.68	-19.07	-18.50



31.1	ISC-				mA
	SN	Initial	30K	50K	100K
110	-17.7	-17.4	-17.5	-17.5	-17.5
111	-17.8	-16.5	-16.3	-15.4	-15.2
112	-17.0	-15.9	-15.8	-15.2	-15.0
113	-18.6	-17.2	-16.9	-16.0	-15.7
114	-18.6	-17.3	-17.0	-16.3	-16.1
115	-16.9	-16.1	-15.8	-15.2	-15.0
116	-17.3	-16.5	-16.2	-15.5	-15.3
118	-17.7	-16.9	-16.3	-15.4	-15.2
119	-17.6	-16.3	-16.0	-15.2	-15.0
120	-17.5	-16.5	-15.9	-15.1	-15.0
121	-19.6	-18.7	-18.1	-17.6	-17.1
min	-19.6	-18.7	-18.1	-17.6	-17.1
max	-16.9	-15.9	-15.8	-15.1	-15.0
stdev	0.84	0.81	0.72	0.77	0.68
average	-17.86	-16.79	-16.43	-15.69	-15.46
+3S	-15.35	-14.37	-14.27	-13.37	-13.42
-3S	-20.37	-19.21	-18.59	-18.01	-17.50



32.0	ISC+				mA
	SN	Initial	30K	50K	100K
110	21.30	21.40	21.30	21.30	21.40
111	21.10	21.00	20.80	20.70	20.90
112	21.00	21.00	20.90	20.70	20.90
113	21.80	21.60	21.40	21.30	21.50
114	21.40	21.30	21.20	21.00	21.20
115	21.10	21.00	20.90	20.80	20.90
116	21.20	21.10	21.00	20.90	21.00
118	21.20	21.00	21.00	20.90	21.00
119	21.50	21.30	21.20	21.00	21.20
120	21.50	21.20	21.20	21.00	21.10
121	21.70	21.40	21.40	21.00	21.30
min	21.00	21.00	20.80	20.70	20.90
max	21.80	21.60	21.40	21.30	21.50
stdev	0.27	0.21	0.21	0.18	0.20
average	21.35	21.19	21.10	20.93	21.10
+3S	22.17	21.81	21.73	21.46	21.70
-3S	20.53	20.57	20.47	20.40	20.50



32.1	ISC+				mA
	SN	Initial	30K	50K	100K
110	21.30	21.40	21.30	21.30	21.30
111	21.20	21.10	20.90	20.80	20.90
112	21.00	21.00	20.80	20.70	20.80
113	21.70	21.60	21.40	21.30	21.50
114	21.30	21.30	21.20	21.00	21.20
115	21.10	21.00	20.90	20.70	20.90
116	21.20	21.00	21.00	20.80	20.90
118	21.30	21.00	21.00	20.90	21.10
119	21.50	21.30	21.20	21.00	21.20
120	21.40	21.20	21.20	21.00	21.10
121	21.60	21.30	21.30	21.00	21.20
min	21.00	21.00	20.80	20.70	20.80
max	21.70	21.60	21.40	21.30	21.50
stdev	0.22	0.20	0.20	0.18	0.21
average	21.33	21.18	21.09	20.92	21.08
+3S	21.99	21.78	21.68	21.46	21.71
-3S	20.67	20.58	20.50	20.38	20.45

