

**RELIABILITY MONITOR REPORT  
FOR**

**0.6  $\mu\text{m}$  Process**

**Dallas Semiconductor**

**4401 South Beltwood Parkway  
Dallas, TX 75244-3292**

**This Report was prepared by  
Dallas Semiconductor Reliability Engineering**

**Summary:**

The data in the tables that follow was generated as the result of an on-going Process Reliability Monitor. The products covered by this process monitor are:

DS1002	DS1050	DS1052	DS1077	DS1077L
DS1085	DS1085L	DS1086	DS1086H	DS1086L
DS1087L	DS1090	DS1094L	DS1100	DS1100L
DS1102L	DS1110	DS1110L	DS1123L	DS1135
DS1135L	DS12885	DS12R885	DS12R885-5	DS1310
DS1311	DS1318	DS1337	DS1337C	DS1338-18
DS1338-3	DS1338-33	DS1338C	DS1339C	DS1339U-2
DS1339U-3	DS1339U-33	DS1340	DS1371	DS1374-18
DS1374-3	DS1374-33	DS1374C	DS1375	DS1390
DS1391	DS1392	DS1393	DS13Q10	DS1482
DS1500	DS1501	DS1543	DS1553	DS1558
DS1615	DS1616	DS1620	DS1621	DS1626
DS1631	DS1631A	DS1643	DS1672	DS1678
DS1679	DS1682	DS1720	DS1721	DS1722
DS1726	DS1731	DS1743	DS1748	DS1775
DS1805	DS1809	DS1820	DS1822	DS1825
DS1830	DS1831	DS1845	DS1846	DS1847
DS1848	DS1849	DS1851	DS1852	DS1854
DS1855	DS1856	DS1857	DS1858	DS1859
DS1870	DS1921	DS1921H	DS1921Z	DS1961
DS2117M	DS2118M	DS2119M	DS2120	DS2125
DS2127	DS2129	DS21348	DS21349	DS21352
DS21354	DS21448	DS2148	DS2149	DS2154
DS21552	DS21554	DS21600	DS21602	DS21604
DS21610	DS2196	DS2197	DS21Q43	DS21Q50
DS21Q58	DS21Q59	DS2401	DS2405	DS2408
DS2409	DS2411	DS2415	DS2417	DS2421
DS2422	DS2432	DS2433	DS2434	DS2436
DS2438	DS2450	DS2470	DS2482-100	DS2490
DS2501	DS2502	DS2503	DS2505	DS2702
DS2711	DS2720	DS2740	DS2740B	DS2751
DS2760	DS2761	DS2762	DS2763	DS2764
DS2770	DS2890	DS3902	DS3903	DS3904
DS3905	DS3930	DS4000	DS4077C	DS4301
DS4302	DS4510	DS4520	DS4550	DS5001
DS5002	DS5240	DS5250	DS7864B	DS7864D
DS80C310	DS80C320	DS80C323	DS80CH11	DS87C550

The calculated failure rate for devices using this process is:

**FAILURE RATE:**                      **MTTF (YRS): 188995**                      **FITS: 0.6**

The parameters used to calculate this failure rate are as follows:

**Cf: 60%**                      **Ea: 0.7**                      **B: 0**                      **Tu: 25 °C**                      **Vu: 5.5 Volts**

The reliability data follows. At the start of this data is the process information. The next section is the detailed reliability data for each stress. The reliability data section includes the latest data available. This report covers data between 1/1/04 and 12/31/04 .

**Device Information:**

Process: 0.6 µm Process  
Interconnect: Aluminum / 1% Silicon / 0.5% Copper  
Gate Oxide Thickness: 150 Å

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**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0340	DS21352	125C, 3.3 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0343	DS2154	125C, 5.0 VOLTS	1000 HRS	80	0	
HIGH TEMP OP LIFE	0345	DS2401	125C, 6.0 VOLTS	1000 HRS	80	0	
HIGH TEMP OP LIFE	0345	DS1621	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0346	DS2751	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH VOLTAGE LIFE	0346	DS5240	125C, 5.5 VOLTS	1000 HRS	44	0	
HIGH TEMP OP LIFE	0347	DS5002	125C, 5.0 VOLTS	1000 HRS	75	0	
HIGH TEMP OP LIFE	0347	DS5002	125C, 5.0 VOLTS	1000 HRS	75	0	
HIGH TEMP OP LIFE	0348	DS5002	125C, 5.0 VOLTS	1000 HRS	75	0	
HIGH TEMP OP LIFE	0349	DS2751	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0349	DS2751	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0350	DS1870	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0351	DS80C320	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0401	DS4510	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0402	DS21448	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0403	DS2401	125C, 5.5 VOLTS	1000 HRS	48	0	
HIGH TEMP OP LIFE	0403	DS2401	125C, 5.5 VOLTS	1000 HRS	48	0	
HIGH TEMP OP LIFE	0403	DS2401	125C, 5.5 VOLTS	1000 HRS	48	0	
HIGH TEMP OP LIFE	0403	DS1318	125C, 3.6 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0403	DS2401	125C, 6.0 VOLTS	1000 HRS	80	0	
HIGH TEMP OP LIFE	0403	DS12R885-5	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0405	DS80C320	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0405	DS2770	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0407	DS2118M	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0408	DS2502	125C, 6.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0408	DS2401	125C, 6.0 VOLTS	1000 HRS	80	0	
HIGH TEMP OP LIFE	0409	DS2505	125C, 6.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0409	DS2129	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0410	DS1090	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0411	DS2411	125C, 5.25 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0411	DS2411	125C, 5.25 VOLTS	1000 HRS	45	0	

HIGH TEMP OP LIFE	0411	DS2411	125C, 5.25 VOLTS	1000 HRS	45	0
HIGH VOLTAGE LIFE	0411	DS2503	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0412	DS1339C	125C, 3.5 VOLTS	1000 HRS	64	0
HIGH TEMP OP LIFE	0412	DS1337C	125C, 5.5 VOLTS	1000 HRS	64	0
HIGH TEMP OP LIFE	0412	DS1337C	125C, 5.5 VOLTS	1000 HRS	64	0
HIGH TEMP OP LIFE	0412	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0413	DS1094L	125C, 3.6 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0413	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0414	DS4302	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0414	DS2503	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0415	DS21352	125C, 3.3 VOLTS	1000 HRS	77	0
HIGH TEMP REVERSE BIAS	0416	DS2761	125C, 5.5 VOLTS	1000 HRS	48	0
HIGH TEMP OP LIFE	0416	DS3902	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0416	DS5240	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP REVERSE BIAS	0417	DS2761	125C, 5.5 VOLTS	1000 HRS	48	0
HIGH TEMP REVERSE BIAS	0417	DS2761	125C, 5.5 VOLTS	1000 HRS	48	0
HIGH TEMP OP LIFE	0417	DS2761	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0418	DS2502	125C, 6.0 VOLTS	1000 HRS	48	0
HIGH TEMP OP LIFE	0418	DS2502	125C, 6.0 VOLTS	1000 HRS	48	0
HIGH TEMP OP LIFE	0418	DS2502	125C, 6.0 VOLTS	1000 HRS	48	0
HIGH TEMP OP LIFE	0418	DS1822	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0418	DS21Q50	125C, 5.0 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0418	DS4520	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0420	DS21354	125C, 3.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0421	DS21354	125C, 5.25 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0421	DS1392	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0421	DS1390	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0422	DS1393	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0424	DS1391	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0424	DS1848	125C, 5.5 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0425	DS1955B0	85 C, 5.25 VOLTS	1000 HRS	77	0
HIGH TEMP OP LIFE	0425	DS2740	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0425	DS4077C	125C, 3.6V (PSA) & -4.0V (PSB)	1000 HRS	45	0
HIGH TEMP OP LIFE	0426	DS2770	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0426	DS1310	125C, 3.6 VOLTS	1000 HRS	77	0

HIGH TEMP OP LIFE	0427	DS2422	125C, 5.5V (PSA) & 3.0V (PSB)	1000 HRS	77	0	
HIGH TEMP OP LIFE	0427	DS2770	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0427	DS1553	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0428	DS2401	125C, 6.0 VOLTS	1000 HRS	80	0	
HIGH TEMP OP LIFE	0429	DS1501	125C, 5.5 VOLTS	1000 HRS	77	1	30031267
HIGH TEMP OP LIFE	0429	DS1501	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0432	DS12885	125C, 5.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0432	DS12885	125C, 5.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0433	DS1553	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0433	DS80C320	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0434	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0435	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0435	DS2501	125C, 6.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0435	DS80C320	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0435	DS80C320	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0435	DS80C320	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0437	DS2751	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0437	DS2711	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0439	DS1859	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0440	DS1955B0	85 C, 5.25 VOLTS	500 HRS	77	0	
HIGH TEMP OP LIFE	0440	DS13Q10	125C, 3.6 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0440	DS4550	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0440	DS5250	125C, 5.5 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0441	DS2502	125C, 6.0 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0441	DS2401	125C, 6.0 VOLTS	500 HRS	80	0	
HIGH TEMP OP LIFE	0442	DS2482-100	125C, 5.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0442	DS2433	125C, 6.0 VOLTS	500 HRS	45	0	
HIGH TEMP REVERSE BIAS	0443	DS2432	125C, 5.25 VOLTS	1000 HRS	48	0	
HIGH TEMP OP LIFE	0443	DS2433	125C, 6.0 VOLTS	500 HRS	45	0	
HIGH TEMP OP LIFE	0444	DS2433	125C, 6.0 VOLTS	500 HRS	45	0	
HIGH TEMP OP LIFE	0445	DS1955B0	85 C, 5.25 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0445	DS1955B0	85 C, 5.25 VOLTS	1000 HRS	77	0	
HIGH TEMP OP LIFE	0446	DS21354	125C, 5.25 VOLTS	1000 HRS	77	0	
						<b>Total:</b>	<b>1</b>

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### STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
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STORAGE LIFE	0345	DS1621	150C	1000	HRS	43	0
STORAGE LIFE	0346	DS2751	150C	1000	HRS	72	0
STORAGE LIFE	0349	DS2751	150C	1000	HRS	52	0
STORAGE LIFE	0349	DS2751	150C	1000	HRS	77	0
STORAGE LIFE	0403	DS2401	125C	1000	HRS	80	0
STORAGE LIFE	0403	DS2401	125C	1000	HRS	80	0
STORAGE LIFE	0403	DS2401	125C	1000	HRS	80	0
STORAGE LIFE	0405	DS2770	150C	1000	HRS	77	0
STORAGE LIFE	0407	DS2118M	150C	1000	HRS	77	0
STORAGE LIFE	0408	DS2502	150C	1000	HRS	77	0
STORAGE LIFE	0409	DS2505	150C	1000	HRS	77	0
STORAGE LIFE	0411	DS2411	125C	1000	HRS	77	0
STORAGE LIFE	0411	DS2411	125C	1000	HRS	77	0
STORAGE LIFE	0411	DS2411	125C	1000	HRS	77	0
STORAGE LIFE	0412	DS1339C	125C	1000	HRS	76	0
STORAGE LIFE	0412	DS1337C	125C	1000	HRS	77	0
STORAGE LIFE	0412	DS1337C	125C	1000	HRS	77	0
STORAGE LIFE	0416	DS2761	125C	1000	HRS	80	0
STORAGE LIFE	0417	DS2761	125C	1000	HRS	80	0
STORAGE LIFE	0417	DS2761	125C	1000	HRS	80	0
STORAGE LIFE	0417	DS2761	150C	1000	HRS	77	0
STORAGE LIFE	0418	DS2502	125C	1000	HRS	80	0
STORAGE LIFE	0418	DS2502	125C	1000	HRS	80	0
STORAGE LIFE	0418	DS2502	125C	1000	HRS	80	0
STORAGE LIFE	0425	DS1955B0	85 C	1000	HRS	77	0
STORAGE LIFE	0425	DS2740	150C	1000	HRS	77	0
STORAGE LIFE	0425	DS4077C	150C	1000	HRS	77	0
STORAGE LIFE	0426	DS2770	150C	1000	HRS	77	0
STORAGE LIFE	0427	DS2770	150C	1000	HRS	77	0
STORAGE LIFE	0427	DS1553	150C	1000	HRS	77	0
STORAGE LIFE	0429	DS1501	150C	1000	HRS	77	1 30031266
STORAGE LIFE	0429	DS1501	150C	1000	HRS	77	0
STORAGE LIFE	0432	DS12885	150C	1000	HRS	77	0
STORAGE LIFE	0432	DS12885	150C	1000	HRS	77	0
STORAGE LIFE	0433	DS1553	150C	1000	HRS	77	0
STORAGE LIFE	0433	DS80C320	150C	1000	HRS	55	0

STORAGE LIFE	0435	DS80C320	150C	1000	HRS	77	0	
STORAGE LIFE	0435	DS80C320	150C	1000	HRS	77	0	
STORAGE LIFE	0435	DS80C320	150C	1000	HRS	77	0	
STORAGE LIFE	0440	DS1955B0	85 C	1000	HRS	77	0	
STORAGE LIFE	0442	DS2433	150C	500	HRS	77	0	
STORAGE LIFE	0443	DS2433	150C	500	HRS	77	0	
STORAGE LIFE	0444	DS2433	150C	500	HRS	77	0	
STORAGE LIFE	0445	DS1955B0	85 C	1000	HRS	70	0	
STORAGE LIFE	0445	DS1955B0	85 C	1000	HRS	77	1	30030360
STORAGE LIFE	0445	DS1955B0	85 C	1000	HRS	77	0	
						<b>Total:</b>	<b>2</b>	

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### TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0340	DS21352	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0343	DS2154	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0345	DS2401	-55C TO 125C	1000	CYS	45	0
TEMP CYCLE	0345	DS1621	-55C TO 125C	1000	CYS	40	0
TEMP CYCLE	0346	DS2751	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0346	DS5240	-55C TO 125C	1000	CYS	76	0
TEMP CYCLE	0347	DS5002	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0347	DS5002	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0348	DS5002	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0349	DS2751	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0349	DS2751	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0351	DS80C320	-55C TO 125C	1000	CYS	45	0
TEMP CYCLE	0403	DS2401	-55C TO 125C	1000	CYS	45	0
TEMP CYCLE	0405	DS2770	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0407	DS2118M	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0408	DS2401	-55C TO 125C	1000	CYS	45	0
TEMP CYCLE	0409	DS2129	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0411	DS2411	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0411	DS2411	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0411	DS2411	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0411	DS2503	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0412	DS1339C	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0412	DS1337C	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0412	DS1337C	-40 TO 85C	1000	CYS	77	0

TEMP CYCLE	0412	DS2501	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0413	DS1094L	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0413	DS2501	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0414	DS2503	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0415	DS21352	-55C TO 125C	1000	CYS	80	0
TEMP CYCLE	0417	DS2761	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0418	DS2502	-40 TO 85C	1000	CYS	80	0
TEMP CYCLE	0418	DS2502	-40 TO 85C	1000	CYS	80	0
TEMP CYCLE	0418	DS2502	-40 TO 85C	1000	CYS	80	0
TEMP CYCLE	0421	DS21354	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0425	DS1955B0	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0425	DS2740	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0426	DS2770	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0427	DS2770	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0427	DS1553	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0428	DS2401	-55C TO 125C	1000	CYS	45	0
TEMP CYCLE	0429	DS1501	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0429	DS1501	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0430	DS1849	-55C TO 125C	500	CYS	77	0
TEMP CYCLE	0432	DS12885	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0432	DS12885	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0433	DS1553	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0433	DS80C320	-55C TO 125C	1000	CYS	60	0
TEMP CYCLE	0434	DS2501	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0435	DS2501	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0435	DS2501	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0435	DS80C320	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0435	DS80C320	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0435	DS80C320	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0437	DS2751	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0439	DS1859	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0440	DS1955B0	-40 TO 85C	1000	CYS	77	0
TEMP CYCLE	0441	DS5240	-55C TO 125C	1000	CYS	77	0
TEMP CYCLE	0441	DS2401	-55C TO 125C	500	CYS	45	0
TEMP CYCLE	0442	DS2433	-55C TO 125C	500	CYS	77	0
TEMP CYCLE, SLOW	0443	DS2432	-40C TO +125C	1000	CYS	48	0

TEMP CYCLE	0443	DS2433	-55C TO 125C	500	CYS	77	0
TEMP CYCLE	0444	DS2433	-55C TO 125C	500	CYS	77	0
TEMP CYCLE	0446	DS21354	-55C TO 125C	1000	CYS	77	0
					<b>Total:</b>		<b>0</b>

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**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0345	DS2401	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0345	DS1621	85/85, 5.5 VOLTS	1000	HRS	70	0
BIASED MOISTURE	0346	DS2751	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0346	DS5240	85/85, 5.5 VOLTS	1000	HRS	76	0
BIASED MOISTURE	0347	DS5002	85/85, 5.5 VOLTS	1000	HRS	42	0
BIASED MOISTURE	0347	DS5002	85/85, 5.5 VOLTS	1000	HRS	42	0
BIASED MOISTURE	0348	DS5002	85/85, 5.5 VOLTS	1000	HRS	42	0
BIASED MOISTURE	0349	DS2751	85/85, 5.5 VOLTS	1000	HRS	70	0
BIASED MOISTURE	0349	DS2751	85/85, 5.5 VOLTS	1000	HRS	71	0
BIASED MOISTURE	0351	DS80C320	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0403	DS2401	85/85, 5.5 VOLTS	1000	HRS	80	0
BIASED MOISTURE	0403	DS2401	85/85, 5.5 VOLTS	1000	HRS	80	0
BIASED MOISTURE	0403	DS2401	85/85, 5.5 VOLTS	1000	HRS	80	0
HAST	0403	DS2401	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0405	DS2770	85/85, 5.5 VOLTS	1000	HRS	77	0
HAST	0408	DS2401	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0411	DS2411	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0411	DS2411	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0411	DS2411	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0412	DS1339C	85/85, 3.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0412	DS1337C	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0412	DS1337C	85/85, 5.5 VOLTS	1000	HRS	77	0
HAST	0412	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0413	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0414	DS2503	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0416	DS2761	85/85, 5.5 VOLTS	1000	HRS	80	0
BIASED MOISTURE	0417	DS2761	85/85, 5.5 VOLTS	1000	HRS	80	0
BIASED MOISTURE	0417	DS2761	85/85, 5.5 VOLTS	1000	HRS	80	0
BIASED MOISTURE	0418	DS2502	85/85, 5.5 VOLTS	1000	HRS	80	0
BIASED MOISTURE	0418	DS2502	85/85, 5.5 VOLTS	1000	HRS	80	0
BIASED MOISTURE	0418	DS2502	85/85, 5.5 VOLTS	1000	HRS	80	0

HAST	0421	DS21354	130C, 85%R.H.,3.5V	96	HRS	45	0
BIASED MOISTURE	0426	DS2770	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0427	DS2770	85/85, 5.5 VOLTS	1000	HRS	77	0
HAST	0427	DS1553	130C, 85%R.H.,5.5V	96	HRS	57	0
HAST	0428	DS2401	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0429	DS1501	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0429	DS1501	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0432	DS12885	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0432	DS12885	85/85, 5.5 VOLTS	1000	HRS	77	0
HAST	0433	DS1553	130C, 85%R.H.,5.5V	96	HRS	73	0
BIASED MOISTURE	0433	DS80C320	85/85, 5.5 VOLTS	1000	HRS	45	0
HAST	0434	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0435	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0435	DS2501	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0435	DS80C320	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0435	DS80C320	130C, 85%R.H.,5.5V	96	HRS	77	0
HAST	0435	DS80C320	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0437	DS2751	85/85, 5.5 VOLTS	1000	HRS	77	0
BIASED MOISTURE	0439	DS1859	85/85, 5.5 VOLTS	1000	HRS	77	0
HAST	0441	DS2401	130C, 85%R.H.,5.5V	96	HRS	77	0
BIASED MOISTURE	0443	DS2432	85/85, 5.5 VOLTS	1000	HRS	48	0
<b>Total:</b>						<b>0</b>	<b>0</b>

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#### UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE	TEST	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
	CODE	VEHICLE					
HAST, NO BIAS	0340	DS21352	130C, 85% R.H.	156	HRS	77	0
HAST, NO BIAS	0343	DS2154	130C, 85% R.H.	156	HRS	77	0
AUTOCLAVE	0345	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	45	0
AUTOCLAVE	0346	DS2751	121C, 2 ATM STEAM, UNBIASED	168	HRS	72	0
AUTOCLAVE	0346	DS5240	121C, 2 ATM STEAM, UNBIASED	168	HRS	76	0
AUTOCLAVE	0349	DS2751	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0349	DS2751	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0351	DS80C320	121C, 2 ATM STEAM, UNBIASED	96	HRS	45	0
AUTOCLAVE	0403	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	80	0
AUTOCLAVE	0403	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	80	0
AUTOCLAVE	0403	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	80	0
AUTOCLAVE	0403	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	45	0

AUTOCLAVE	0405	DS2770	121C, 2 ATM STEAM, UNBIASED	168	HRS	76	0
AUTOCLAVE	0407	DS2118M	121C, 2 ATM STEAM, UNBIASED	168	HRS	75	0
AUTOCLAVE	0408	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	45	0
AUTOCLAVE	0409	DS2129	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0409	DS2118M	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0411	DS2411	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0411	DS2411	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0411	DS2411	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0412	DS2501	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0413	DS1094L	121C, 2 ATM STEAM, UNBIASED	168	HRS	85	0
AUTOCLAVE	0413	DS2501	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0414	DS2503	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
HAST, NO BIAS	0415	DS21352	130C, 85% R.H.	100	HRS	80	0
MOISTURE SOAK	0417	DS2761	85 C/85% R.H.	1000	HRS	77	0
HAST, NO BIAS	0421	DS21354	130C, 85% R.H.	200	HRS	77	0
MOISTURE SOAK	0425	DS1955B0	60C/90% R.H.	1000	HRS	77	0
HAST, NO BIAS	0425	DS2740	130C, 85% R.H.	200	HRS	77	0
AUTOCLAVE	0425	DS2740	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0426	DS2770	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0427	DS2770	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
HAST, NO BIAS	0427	DS1553	130C, 85% R.H.	200	HRS	77	0
AUTOCLAVE	0428	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	45	0
HAST, NO BIAS	0429	DS1501	130C, 85% R.H.	200	HRS	76	0
HAST, NO BIAS	0429	DS1501	130C, 85% R.H.	200	HRS	77	0
AUTOCLAVE	0432	DS12885	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0432	DS12885	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
HAST, NO BIAS	0433	DS1553	130C, 85% R.H.	200	HRS	77	0
AUTOCLAVE	0433	DS80C320	121C, 2 ATM STEAM, UNBIASED	168	HRS	58	0
AUTOCLAVE	0434	DS2501	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0435	DS2501	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0435	DS2501	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0435	DS80C320	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0435	DS80C320	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0435	DS80C320	121C, 2 ATM STEAM, UNBIASED	168	HRS	76	0
AUTOCLAVE	0437	DS2751	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0439	DS1859	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
MOISTURE SOAK	0440	DS1955B0	60C/90% R.H.	1000	HRS	77	0

AUTOCLAVE	0441	DS2401	121C, 2 ATM STEAM, UNBIASED	168	HRS	45	0
AUTOCLAVE	0442	DS2433	121C, 2 ATM STEAM, UNBIASED	168	HRS	76	0
AUTOCLAVE	0443	DS2433	121C, 2 ATM STEAM, UNBIASED	168	HRS	75	0
AUTOCLAVE	0444	DS2433	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
MOISTURE SOAK	0445	DS1955B0	60C/90% R.H.	1000	HRS	71	0
MOISTURE SOAK	0445	DS1955B0	60C/90% R.H.	1000	HRS	77	0
MOISTURE SOAK	0445	DS1955B0	60C/90% R.H.	1000	HRS	77	0
<b>Total:</b>							<b>0</b>

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**W/E ENDURANCE AND DATA RET'N**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
WRITE CYCLE STRESS STORAGE LIFE	0350	DS1870	70 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 74	0 0
WRITE CYCLE STRESS STORAGE LIFE	0401	DS4510	70 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 76	1 30019498 0
WRITE CYCLE STRESS STORAGE LIFE	0413	DS1094L	70 C, 3.6 VOLTS 150C	10 1000	KCYS HRS	77 75	0 0
WRITE CYCLE STRESS STORAGE LIFE	0416	DS3902	70 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 77	0 0
WRITE CYCLE STRESS STORAGE LIFE	0418	DS1822	55 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 77	0 0
WRITE CYCLE STRESS STORAGE LIFE	0418	DS4520	70 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 77	0 0
WRITE CYCLE STRESS STORAGE LIFE	0424	DS1848	85 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 77	0 0
WRITE CYCLE STRESS STORAGE LIFE	0437	DS2751	85 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 77	0 0
WRITE CYCLE STRESS STORAGE LIFE	0439	DS1859	70 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 75	2 30029601 0
WRITE CYCLE STRESS STORAGE LIFE	0440	DS4550	70 C, 5.5 VOLTS 150C	30 1000	KCYS HRS	77 77	0 0
<b>Total:</b>							<b>3</b>

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**WRITE CYCLE STRESS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
WRITE CYCLE STRESS	0345	DS1621	85 C, 5.5 VOLTS	50	KCYS	50	0
<b>Total:</b>							<b>0</b>

**FAILURE RATE:                    MTTF (YRS): 188995                    FITS: 0.6**