

RELIABILITY REPORT
FOR

DS1620, Rev E2

Dallas Semiconductor

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Prepared by:

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Conclusion:

The following qualification successfully meets the quality and reliability standards required of all Dallas Semiconductor products and processes:

DS1620, Rev E2

In addition, Dallas Semiconductor's continuous reliability monitor program ensures that all outgoing product will continue to meet Maxim's quality and reliability standards. The current status of the reliability monitor program can be viewed at <http://www.maxim-ic.com/TechSupport/dsreliability.html>.

Device Description:

A description of this device can be found in the product data sheet. You can find the product data sheet at http://dbserv.maxim-ic.com/l_datasheet3.cfm.

Reliability Derating:

The Arrhenius model will be used to determine the acceleration factor for failure mechanisms that are temperature accelerated.

$$AfT = \exp((Ea/k) * (1/Tu - 1/Ts)) = tu/ts$$

AfT = Acceleration factor due to Temperature
tu = Time at use temperature (e.g. 55°C)
ts = Time at stress temperature (e.g. 125°C)
k = Boltzmann's Constant (8.617 x 10⁻⁵ eV/°K)
Tu = Temperature at Use (°K)
Ts = Temperature at Stress (°K)
Ea = Activation Energy (e.g. 0.7 eV)

The activation energy of the failure mechanism is derived from either internal studies or industry accepted standards, or activation energy of 0.7eV will be used whenever actual failure mechanisms or their activation energies are unknown. All deratings will be done from the stress ambient temperature to the use ambient temperature.

An exponential model will be used to determine the acceleration factor for failure mechanisms, which are voltage accelerated.

$$AfV = \exp(B * (Vs - Vu))$$

AfV = Acceleration factor due to Voltage
Vs = Stress Voltage (e.g. 7.0 volts)
Vu = Maximum Operating Voltage (e.g. 5.5 volts)
B = Constant related to failure mechanism type (e.g. 1.0, 2.4, 2.7, etc.)

The Constant, B, related to the failure mechanism is derived from either internal studies or industry accepted standards, or a B of 1.0 will be used whenever actual failure mechanisms or their B are unknown. All deratings will be done from the stress voltage to the maximum operating voltage. Failure rate data from the operating life test is reported using a Chi-Squared statistical model at the 60% or 90% confidence level (Cf).

The failure rate, Fr, is related to the acceleration during life test by:

$$Fr = X / (ts * AfV * AfT * N * 2)$$

X = Chi-Sq statistical upper limit
N = Life test sample size

Failure Rates are reported in FITs (Failures in Time) or MTTF (Mean Time To Failure). The FIT rate is related to MTTF by:

$$MTTF = 1/Fr$$

NOTE: MTTF is frequently used interchangeably with MTBF.

The calculated failure rate for this device/process is:

FAILURE RATE: **MTTF (YRS): 113614** **FITS: 1.0**

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 device information. The next section is the detailed reliability data for each stress. The reliability data section includes the latest data available.

Device Information:

Process: D6W-2P2M,HPVt,E2,EPROGVt,TCN1 PBL:GOI
 Passivation: Passivation w/Nov TEOS Oxide-Nitride
 Die Size: 71 x 54
 Number of Transistors: 7815
 Interconnect: Aluminum / 1% Silicon / 0.5% Copper
 Gate Oxide Thickness: 150 Å

LOW TEMPERATURE OPERATING LIFE

DESCRIPTION	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS
BIASED BAKE	0017	-20C, 6.0 VOLTS	1000 HRS	77	0
BIASED BAKE	0017	-20C, 6.0 VOLTS	1000 HRS	77	0
BIASED BAKE	9905	-20C, 6.0 VOLTS	1000 HRS	77	0
				Total:	0

OPERATING LIFE

DESCRIPTION	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS
HIGH VOLTAGE LIFE	0003	125C, 6.0 VOLTS	48 HRS	270	0
HIGH VOLTAGE LIFE	0003	125C, 6.0 VOLTS	1000 HRS	116	0
HIGH VOLTAGE LIFE	0006	125C, 6.0 VOLTS	48 HRS	270	0
HIGH VOLTAGE LIFE	0006	125C, 6.0 VOLTS	1000 HRS	116	0
HIGH VOLTAGE LIFE	0011	125C, 6.0 VOLTS	48 HRS	266	0
HIGH VOLTAGE LIFE	0011	125C, 6.0 VOLTS	1000 HRS	116	0
HIGH VOLTAGE LIFE	0012	125C, 6.0 VOLTS	48 HRS	269	0
HIGH VOLTAGE LIFE	0012	125C, 6.0 VOLTS	1000 HRS	116	0
INFANT LIFE	0017	125C, 6.0 VOLTS	54 HRS	347	0
HIGH VOLTAGE LIFE	0017	125C, 6.0 VOLTS	1000 HRS	116	0
INFANT LIFE	0017	125C, 6.0 VOLTS	54 HRS	347	0
HIGH VOLTAGE LIFE	0017	125C, 6.0 VOLTS	1000 HRS	116	0

INFANT LIFE	0040	125C, 6.0 VOLTS	48	HRS	256	1
HIGH VOLTAGE LIFE	0040	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0101	125C, 6.0 VOLTS	72	HRS	270	1
HIGH VOLTAGE LIFE	0101	125C, 6.0 VOLTS	1000	HRS	110	0
INFANT LIFE	0101	125C, 6.0 VOLTS	48	HRS	780	0
HIGH VOLTAGE LIFE	0101	125C, 6.0 VOLTS	1000	HRS	450	0
INFANT LIFE	0119	125C, 6.0 VOLTS	48	HRS	270	0
HIGH VOLTAGE LIFE	0119	125C, 6.0 VOLTS	1000	HRS	116	0
HIGH VOLTAGE LIFE	0122	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0126	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0132	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0140	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0141	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0141	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0143	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0143	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0145	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0204	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0211	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0214	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0216	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0217	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0219	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0219	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0219	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0220	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH TEMP OP LIFE	0221	125C, 5.25 VOLTS	1000	HRS	45	0
HIGH VOLTAGE LIFE	0223	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0223	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0223	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0223	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0226	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0230	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0230	125C, 6.0 VOLTS	1000	HRS	77	0
HIGH VOLTAGE LIFE	0230	125C, 6.0 VOLTS	1000	HRS	80	0
HIGH VOLTAGE LIFE	0231	125C, 6.0 VOLTS	1000	HRS	77	1
HIGH VOLTAGE LIFE	0243	125C, 6.0 VOLTS	1000	HRS	80	0

HIGH VOLTAGE LIFE	0245	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH VOLTAGE LIFE	0248	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH VOLTAGE LIFE	0249	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH VOLTAGE LIFE	0251	125C, 6.0 VOLTS	1000 HRS	45	0
HIGH VOLTAGE LIFE	0252	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH VOLTAGE LIFE	0252	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH VOLTAGE LIFE	0303	125C, 6.0 VOLTS	1000 HRS	77	0
HIGH VOLTAGE LIFE	0305	125C, 6.0 VOLTS	1000 HRS	77	1
HIGH VOLTAGE LIFE	0305	125C, 6.0 VOLTS	1000 HRS	45	0
HIGH VOLTAGE LIFE	0307	125C, 6.0 VOLTS	1000 HRS	80	0
HIGH VOLTAGE LIFE	0307	125C, 6.0 VOLTS	1000 HRS	80	0
HIGH TEMP OP LIFE	0312	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0312	125C, 5.5 VOLTS	1000 HRS	80	0
HIGH TEMP OP LIFE	0315	125C, 5.5 VOLTS	1000 HRS	45	0
HIGH TEMP OP LIFE	0320	125C, 3.6 VOLTS	192 HRS	77	0
HIGH TEMP OP LIFE	0325	125C, 5.5 VOLTS	192 HRS	77	0
HIGH TEMP OP LIFE	0325	125C, 5.5 VOLTS	192 HRS	77	0
HIGH VOLTAGE LIFE	0327	125C, 5.5 VOLTS	192 HRS	45	0
INFANT LIFE	9905	125C, 6.0 VOLTS	48 HRS	347	0
HIGH VOLTAGE LIFE	9905	125C, 6.0 VOLTS	1000 HRS	116	0
HIGH VOLTAGE LIFE	9950	125C, 6.0 VOLTS	1000 HRS	256	0
HIGH VOLTAGE LIFE	9950	125C, 6.0 VOLTS	1000 HRS	256	0
				Total:	4

STORAGE LIFE

DESCRIPTION	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS
STORAGE LIFE	0017	150C	1000 HRS	77	0
STORAGE LIFE	0017	150C	1000 HRS	77	0
STORAGE LIFE	0049	150C	1000 HRS	20	0
STORAGE LIFE	0120	150C	1000 HRS	20	0
STORAGE LIFE	0122	150C	1000 HRS	20	0
STORAGE LIFE	0141	150C	1000 HRS	77	0
STORAGE LIFE	0223	150C	1000 HRS	77	0
STORAGE LIFE	0226	150C	1000 HRS	77	0
STORAGE LIFE	0305	150C	1000 HRS	77	0
STORAGE LIFE	0320	150C	192 HRS	77	0
STORAGE LIFE	0330	125C	500 HRS	77	0
STORAGE LIFE	9905	150C	1000 HRS	77	0

Total: 0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS
TEMP CYCLE	0002	-55C TO 125C	1000 CYS	74	0
TEMP CYCLE	0003	-55C TO 125C	1000 CYS	76	0
TEMP CYCLE	0006	-55C TO 125C	1000 CYS	70	0
TEMP CYCLE	0008	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0010	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0011	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0011	-55C TO 125C	1000 CYS	45	0
TEMP CYCLE	0012	-55C TO 125C	1000 CYS	73	0
TEMP CYCLE	0017	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0017	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0049	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0049	-55C TO 125C	1000 CYS	20	0
TEMP CYCLE	0101	-55C TO 125C	1000 CYS	63	0
TEMP CYCLE	0119	-55C TO 125C	1000 CYS	76	0
TEMP CYCLE	0120	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0120	-55C TO 125C	1000 CYS	20	0
TEMP CYCLE	0122	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0122	-55C TO 125C	1000 CYS	20	0
TEMP CYCLE	0126	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0126	-55C TO 125C	1000 CYS	40	0
TEMP CYCLE	0127	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0132	-55C TO 125C	1000 CYS	40	0
TEMP CYCLE	0138	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0140	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0141	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0141	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0214	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0216	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0230	-55C TO 125C	1000 CYS	40	0
TEMP CYCLE	0240	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0240	-55C TO 125C	1000 CYS	77	0
TEMP CYCLE	0243	-55C TO 125C	1000 CYS	40	0
TEMP CYCLE	0307	-55C TO 125C	1000 CYS	80	0
TEMP CYCLE	0307	-55C TO 125C	1000 CYS	80	0

TEMP CYCLE	0312	-55C TO 125C	1000 CYS	40	0
TEMP CYCLE, SLOW	0330	-40C TO +125C	500 CYS	77	0
TEMP CYCLE, SLOW	0330	-40C TO +125C	500 CYS	77	0
TEMP CYCLE	9905	-55C TO 125C	1000 CYS	77	0
				Total:	0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS
BIASED MOISTURE	0008	85/85, 5.5 VOLTS	959 HRS	77	0
BIASED MOISTURE	0126	85/85, 5.5 VOLTS	1000 HRS	77	0
BIASED MOISTURE	0132	85/85, 5.5 VOLTS	1000 HRS	77	0
HAST	0141	130C, 85%R.H.,5.5V	96 HRS	77	0
HAST	0216	130C, 85%R.H.,5.5V	96 HRS	76	0
BIASED MOISTURE	0230	85/85, 5.5 VOLTS	1000 HRS	77	0
BIASED MOISTURE	0243	85/85, 5.5 VOLTS	1000 HRS	77	0
BIASED MOISTURE	0312	85/85, 5.5 VOLTS	1000 HRS	77	0
BIASED MOISTURE	0330	85/85, 5.5 VOLTS	500 HRS	77	0
				Total:	0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS
AUTOCLAVE	0011	121C, 2 ATM STEAM, UNBIASED	168 HRS	45	0
AUTOCLAVE	0049	121C, 2 ATM STEAM, UNBIASED	168 HRS	45	0
AUTOCLAVE	0049	121C, 2 ATM STEAM, UNBIASED	96 HRS	20	0
AUTOCLAVE	0120	121C, 2 ATM STEAM, UNBIASED	168 HRS	45	0
AUTOCLAVE	0120	121C, 2 ATM STEAM, UNBIASED	168 HRS	20	0
AUTOCLAVE	0122	121C, 2 ATM STEAM, UNBIASED	168 HRS	44	0
AUTOCLAVE	0122	121C, 2 ATM STEAM, UNBIASED	96 HRS	20	0
MOISTURE SOAK	0126	85 C/85% R.H.	959 HRS	77	0
AUTOCLAVE	0126	121C, 2 ATM STEAM, UNBIASED	168 HRS	40	0
MOISTURE SOAK	0127	85 C/85% R.H.	959 HRS	77	0
AUTOCLAVE	0132	121C, 2 ATM STEAM, UNBIASED	168 HRS	39	0
MOISTURE SOAK	0138	85 C/85% R.H.	959 HRS	77	0
AUTOCLAVE	0141	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0
AUTOCLAVE	0141	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0
AUTOCLAVE	0143	121C, 2 ATM STEAM, UNBIASED	168 HRS	72	0
AUTOCLAVE	0216	121C, 2 ATM STEAM, UNBIASED	168 HRS	77	0
AUTOCLAVE	0230	121C, 2 ATM STEAM, UNBIASED	168 HRS	40	0
AUTOCLAVE	0243	121C, 2 ATM STEAM, UNBIASED	168 HRS	40	0

AUTOCLAVE	0312	121C, 2 ATM STEAM, UNBIASED	168	HRS	39	0
AUTOCLAVE	0330	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0330	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0
AUTOCLAVE	0330	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	1
Total:						1

W/E ENDURANCE AND DATA RET'N

DESCRIPTION	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS	
WRITE CYCLE STRESS	0002	85 C, 6.0 V (PSA): 12.0 V (PSB)	50	KCYS	77	1
STORAGE LIFE		125C	168	HRS	65	0
WRITE CYCLE STRESS	0003	85 C, 6.0 VOLTS	50	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	76	0
WRITE CYCLE STRESS	0006	85 C, 6.0 VOLTS	50	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	47	0
WRITE CYCLE STRESS	0010	85 C, 6.0 V (PSA): 12.0 V (PSB)	30	KCYS	76	0
STORAGE LIFE		125C	168	HRS	71	0
WRITE CYCLE STRESS	0011	85 C, 6.0 VOLTS	50	KCYS	70	0
STORAGE LIFE		150C	1000	HRS	68	0
WRITE CYCLE STRESS	0011	85 C, 6.0 V (PSA): 12.0 V (PSB)	30	KCYS	77	0
STORAGE LIFE		125C	168	HRS	77	0
WRITE CYCLE STRESS	0012	85 C, 6.0 VOLTS	50	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	74	0
WRITE CYCLE STRESS	0040	85 C, 6.0 VOLTS	50	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0101	85 C, 6.0 VOLTS	25	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	76	0
WRITE CYCLE STRESS	0119	85 C, 5.5 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	168	HRS	77	0
WRITE CYCLE STRESS	0122	85 C, 6.0 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	74	0
WRITE CYCLE STRESS	0140	85 C, 6.0 VOLTS	25	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0141	70 C, 3.6 VOLTS	5	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	73	0
WRITE CYCLE STRESS	0143	85 C, 5.5 VOLTS	25	KCYS	77	0
STORAGE LIFE		150C	168	HRS	76	0
WRITE CYCLE STRESS	0143	85 C, 5.5 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	168	HRS	77	0
WRITE CYCLE STRESS	0143	85 C, 5.5 VOLTS	60	KCYS	77	0
STORAGE LIFE		150C	168	HRS	76	0
WRITE CYCLE STRESS	0145	85 C, 6.0 VOLTS	25	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	75	0
WRITE CYCLE STRESS	0204	85 C, 6.0 VOLTS	30	KCYS	77	1

STORAGE LIFE	0204	150C	1000 HRS	76	0
WRITE CYCLE STRESS	0207	85 C, 6.0 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	0
WRITE CYCLE STRESS	0211	85 C, 6.0 VOLTS	50 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	0
WRITE CYCLE STRESS	0214	85 C, 6.0 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	0
WRITE CYCLE STRESS	0214	85 C, 6.0 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	76	0
WRITE CYCLE STRESS	0217	85 C, 6.0 VOLTS	50 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	0
WRITE CYCLE STRESS	0219	85 C, 5.5 VOLTS	30 KCYS	80	0
STORAGE LIFE		150C	168 HRS	80	0
WRITE CYCLE STRESS	0219	85 C, 5.5 VOLTS	30 KCYS	80	0
STORAGE LIFE		150C	168 HRS	80	0
WRITE CYCLE STRESS	0219	85 C, 5.5 VOLTS	30 KCYS	80	0
STORAGE LIFE		150C	168 HRS	80	0
WRITE CYCLE STRESS	0220	85 C, 6.0 VOLTS	25 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	0
WRITE CYCLE STRESS	0223	85 C, 6.0 VOLTS	25 KCYS	77	0
STORAGE LIFE		150C	1336 HRS	77	0
WRITE CYCLE STRESS	0223	85 C, 6.0 VOLTS	10 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	76	0
WRITE CYCLE STRESS	0230	85 C, 5.5 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	168 HRS	77	0
WRITE CYCLE STRESS	0231	85 C, 6.0 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	336 HRS	77	0
WRITE CYCLE STRESS	0245	70 C, 5.5 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	73	0
WRITE CYCLE STRESS	0248	85 C, 6.0 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	0
WRITE CYCLE STRESS	0249	70 C, 5.5 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	1
WRITE CYCLE STRESS	0251	70 C, 6.0 VOLTS	30 KCYS	77	0
STORAGE LIFE		150C	1000 HRS	77	0
WRITE CYCLE STRESS	0252	85 C, 6.0 VOLTS	25 KCYS	77	0
STORAGE LIFE		150C	2000 HRS	76	0
WRITE CYCLE STRESS	0252	85 C, 6.0 VOLTS	25 KCYS	77	0
STORAGE LIFE		150C	2000 HRS	77	0
WRITE CYCLE STRESS	0252	85 C, 5.5 VOLTS	25 KCYS	500	0
STORAGE LIFE		150C	1000 HRS	425	0
WRITE CYCLE STRESS	0252	85 C, 5.5 VOLTS	25 KCYS	500	1
STORAGE LIFE		150C	1000 HRS	443	0

WRITE CYCLE STRESS	0301	85 C, 6.0 V (PSA): 12.0 V (PSB)	30	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	75	0
WRITE CYCLE STRESS	0303	85 C , 5.25 VOLTS	20	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0303	25 C, 5.25 VOLTS	50	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0303	25 C, 5.25 VOLTS	40	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	1
WRITE CYCLE STRESS	0305	85 C, 6.0 VOLTS	50	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0306	85 C, 6.0 V (PSA): 12.0 V (PSB)	30	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0312	85 C, 5.5 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	72	0
WRITE CYCLE STRESS	0314	70 C, 5.5 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0315	70 C, 5.5 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	1000	HRS	77	0
WRITE CYCLE STRESS	0325	85 C, 5.5 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	96	HRS	76	0
WRITE CYCLE STRESS	0327	70 C, 5.5 VOLTS	30	KCYS	77	0
STORAGE LIFE		150C	96	HRS	77	0
					Total:	5

FAILURE RATE:

MTTF (YRS): 113614

FITS: 1.0