RELIABILITY MONITOR

DS1000M-100 JAN '99 MONITOR-HYUNDAI,CHINA

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS1000	E3	9847	DH833179ADA	8 PIN PDIP	CHIPPAC, CHINA (CPS)

PROCESS Single Poly, Single Metal 1.2 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23057	INFANT LIFE	125°C, 7.0 VOLTS		234	48	HOUR	0
P23178	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
P23179	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23180	BIASED MOISTURE	85/85, 5.5 VOLTS		77	274	HOUR	0
				77	959	HOUR	0
		TOTAL:					0
P23181	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS1233 JAN '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS1233	A5	9842	DM823017ABA	SOT-223	CARSEM

PROCESS Single Poly, Single Metal 1.2 µm Zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23164	INFANT LIFE	125°C, 7.0 VOLTS		229	48	HOUR	0
P23250	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.07E+07		0
P23064	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P23065	HIGH TEMP STORAGE	125°C		233	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		233	168	HOUR	
	CONVECTION REFLOW	235°C		233	3	PASS	0
		TOTAL:					0
P23251	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23252	HAST	120°C, 85%R.H.,5.5V		72	100	HOUR	0
		TOTAL:					0
P23253	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS1233Z-10 APR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS1233	A5	9911	DM837033ABA	SOT-223	CARSEM

PROCESS Single Poly, Single Metal 1.2 µm Zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23773	INFANT LIFE	125°C, 7.0 VOLTS		229	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	239	DEVICE HRS: 3.84E+06		0
P23663	HIGH TEMP STORAGE	125°C		233	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		233	168	HOUR	
	CONVECTION REFLOW	235°C		233	3	PASS	0
		TOTAL:					0
P23940	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23941	HAST	130°C,85%R.H.,5.5V		72	100	HOUR	0
		TOTAL:					0
P23942	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS1803-010 NOV '98 MONITOR-HYUNDAI,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS1803	A2	9833	DL820412AAB	16PN, 150 MIL SOIC	CHIPPAC, KOREA

PROCESS Single Poly, Double Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23173	INFANT LIFE	125°C, 7.0 VOLTS		234	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	233	DEVICE HRS: 3.92E+06		0
P22797	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P22798	HIGH TEMP STORAGE	125°C		238	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		238	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		238	3	PASS	0
		TOTAL:					0
P23924	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23926	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS1803-010 FEB '99 MONITOR-HYUNDAI,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS1803	A2	9835	DL818111AAB	16PN, 150 MIL SOIC	CHIPPAC, KOREA

PROCESS Single Poly, Double Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23928	INFANT LIFE	125°C, 7.0 VOLTS		232	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	235	DEVICE HRS: 3.89E+06		0
P23275	HIGH TEMP STORAGE	125°C		238	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		238	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		238	3	PASS	0
		TOTAL:					0
P24006	AUTOCLAVE	121°C STEAM, UNBIASED		38	96	HOUR	2
		TOTAL:					2

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
P24003	W1PUP3V	IN PROCESS	IN PROCESS
P24006	CONTINUITY	IN PROCESS	IN PROCESS

RELIABILITY MONITOR

DS1869S MAR '99 MONITOR-NSEB

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS1869	A3	9829	DJ821534ABB	8PN SOIC, 208MIL	ALPHTK-BANGKOK(NSEB)

PROCESS Single Poly, Single Metal 1.2 µm E2PROM process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23440	INFANT LIFE	125°C, 7.0 VOLTS		237	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	231	DEVICE HRS:	3.97E+06	0
P23360	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0

RELIABILITY MONITOR

DS2109 DEC '98 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2109	A7	9836	DM811524AA-	28 PIN SOIC	CARSEM

PROCESS Single Poly, Single Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23110	INFANT LIFE	125°C, 7.0 VOLTS		233	48	HOUR	0
P23155	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
P22902	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P22903	HIGH TEMP STORAGE	125°C		237	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		237	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		237	3	PASS	0
		TOTAL:					0
P23156	TEMP CYCLE	-55 TO 125°C		50	300	CYCL	0
				50	1000	CYCL	0
		TOTAL:					0
P23157	HAST	120°C, 85%R.H.,5.5V		65	100	HOUR	0
		TOTAL:					0
P23158	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS2109S MAR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2109	A7	9839	DM812688AAA	28 PIN SOIC	CARSEM

PROCESS Single Poly, Single Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23723	INFANT LIFE	125°C, 7.0 VOLTS		233	48	HOUR	5
		TOTALS:	FAIL RATE (Fits):	1646	DEVICE HRS:	3.82E+06	5
P23364	HIGH TEMP STORAGE	125°C		237	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		237	168	HOUR	
	CONVECTION REFLOW	235°C		237	3	PASS	0
		TOTAL:					0
P23834	HAST	130°C,85%R.H.,5.5V		66	100	HOUR	0
		TOTAL:					0
P23835	AUTOCLAVE	121°C STEAM, UNBIASED		35	96	HOUR	4
		TOTAL:					4

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
P23723	GND_SENSE	IN PROCESS (4 UNITS)	IN PROCESS
P23723	TERM RESIST	IN PROCESS (1 UNIT)	IN PROCESS

RELIABILITY MONITOR

DS2109S JUN '99 MONITOR - CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2109	A7	9839	DM811523AAA2	28 PIN SOIC	CARSEM

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
P23948	HIGH TEMP STORAGE	125°C	237	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.	237	168	HOUR	
	CONVECTION REFLOW	235°C	237	3	PASS	0
		TOTAL:				0

RELIABILITY MONITOR

DS2118M MAR '99 MONITOR,D.P.-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2118M	A4	9904	DN844402AAC	36PN SSOP	ANAM-K (ASI/AICL)

PROCESS Single Poly, Double Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23526	INFANT LIFE	125°C, 6.0 VOLTS		234	48	HOUR	0
P23600	HIGH VOLTAGE LIFE	125°C, 6.0 VOLTS		77	336	HOUR	0
		125°C, 6.0 VOLTS		77	1000	HOUR	1
		TOTALS:	FAIL RATE (Fits):	180	DEVICE HRS: 1.13E+07		1
P23366	HIGH TEMP STORAGE	125°C		238	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		238	240	HOUR	
	CONVECTION REFLOW	235°C		238	3	PASS	0
		TOTAL:					0
P23601	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23602	HAST	130°C,85%R.H.,5.5V		77	100	HOUR	1
		TOTAL:					1
P23603	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
P23600	RDM-LVD	IN PROCESS	IN PROCESS

RELIABILITY MONITOR

DS2118M MAR '99 MONITOR,D.P.-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2118M	A4	9904	DN844402AAC	36PN SSOP	ANAM-K (ASI/AICL)

PROCESS Single Poly, Double Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
P23602	IIL (BIN 4)	IN PROCESS	IN PROCESS			

RELIABILITY MONITOR

DS2118M JUN '99 MONITOR,D.P.-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2118M	A4	9912	DN848138AAA	36PN SSOP	ANAM-K (ASI/AICL)

PROCESS Single Poly, Double Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P24038	INFANT LIFE	125°C, 6.0 VOLTS		234	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	635	DEVICE HRS: 1.44E+06		0
P23950	HIGH TEMP STORAGE	125°C		238	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		238	240	HOUR	
	CONVECTION REFLOW	235°C		238	3	PASS	0
		TOTAL:					0
P24073	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS2153Q DEC '98 MONITOR-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2153	A7	9833	DN811539AAB	44 PIN PLCC	ANAM-K (ASI/AICL)

PROCESS Double Poly, Single Metal 0.8 µm Capacitor

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1
Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23108	INFANT LIFE	125°C, 6.0 VOLTS		237	48	HOUR	0
P23191	HIGH VOLTAGE LIFE	125°C, 6.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	81	DEVICE HRS: 1.14E+07		0
P22904	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P22905	HIGH TEMP STORAGE	125°C		241	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		241	144	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		241	3	PASS	0
		TOTAL:					0
P23192	TEMP CYCLE	-55 TO 125°C		60	1000	CYCL	0
		TOTAL:					0
P23193	AUTOCLAVE	121°C STEAM, UNBIASED		100	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS2153Q MAR '99 MONITOR,D.P.-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2153	A7	9901	DN819185AAB	44 PIN PLCC	ANAM-K (ASI/AICL)

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
P23368	HIGH TEMP STORAGE	125°C	241	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.	241	144	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE	241	3	PASS	0
		TOTAL:				0

RELIABILITY MONITOR

DS2175 JAN '99 MONITOR-ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2175	D1	9838	DK826585AAC	16 PIN SOIC	ANAM-PI (ATP/AAPI)

PROCESS Single Poly, Single Metal 2.0 µm Pfield

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23183	INFANT LIFE	125°C, 7.0 VOLTS		234	48	HOUR	0
P23233	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
P23069	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P23070	TEMP CYCLE	-55 TO 125°C		238	10	CYCL	
	HIGH TEMP STORAGE	125°C		238	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		238	168	HOUR	
	CONVECTION REFLOW	235°C		238	3	PASS	0
		TOTAL:					0
P23234	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23235	BIASED MOISTURE	85/85, 5.5 VOLTS		77	274	HOUR	0
				77	959	HOUR	0
		TOTAL:					0
P23236	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0

RELIABILITY MONITOR

DS2175 JAN '99 MONITOR-ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2175	D1	9838	DK826585AAC	16 PIN SOIC	ANAM-PI (ATP/AAPI)

PROCESS Single Poly, Single Metal 2.0 µm Pfield

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
		TOTAL:				0

RELIABILITY MONITOR

DS2180A APR '99 MONITOR - ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2180A	B3	9850	DN839402AAC	44 PIN PLCC	ANAM-K (ASI/AICL)

PROCESS Single Poly, Single Metal 2.0 µm Pfield

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23775	INFANT LIFE	125°C, 7.0 VOLTS		237	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	232	DEVICE HRS:	3.94E+06	0
P23668	TEMP CYCLE	-55 TO 125°C		241	10	CYCL	
	HIGH TEMP STORAGE	125°C		241	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		241	144	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		241	3	PASS	0
		TOTAL:					0
P23880	TEMP CYCLE	-55 TO 125°C		60	300	CYCL	0
				60	1000	CYCL	0
		TOTAL:					0
P23881	HAST	130°C,85%R.H.,5.5V		60	100	HOUR	0
		TOTAL:					0
P23882	AUTOCLAVE	121°C STEAM, UNBIASED		38	96	HOUR	1
		TOTAL:					1

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
P23882	VECTOR	IN PROCESS	IN PROCESS

RELIABILITY MONITOR

DS21S07AE NOV '98 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS21S07A	B2	9825	DK809216ACB	20 PIN TSSOP	ANAM-PI (ATP/AAPI)

PROCESS Single Poly, Single Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P22912	INFANT LIFE	125°C, 7.0 VOLTS		231	48	HOUR	0
P23127	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
P22799	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P22800	HIGH TEMP STORAGE	125°C		238	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.		238	168	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		238	3	PASS	0
		TOTAL:					0
P23128	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23129	BIASED MOISTURE	85/85, 5.5 VOLTS		77	274	HOUR	0
				77	959	HOUR	0
		TOTAL:					0
P23130	AUTOCLAVE	121°C STEAM, UNBIASED		37	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS21S07AE NOV '98 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS21S07A	B2	9825	DK809216ACB	20 PIN TSSOP	ANAM-PI (ATP/AAPI)

PROCESS Single Poly, Single Metal 0.8 µm Negative zero tempco poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf:	60%	Tuse:	55 °C
Ea:	0.7	Vuse:	5.5 Volts
β:	1		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS

RELIABILITY MONITOR

DS2401 DEC '98 TO-92 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2401	B2	9815	DM803085AAA	TO-92	CARSEM

PROCESS Single Poly, Single Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P22922	HIGH VOLTAGE LIFE	125°C, 6.0 VOLTS		77	336	HOUR	0
		125°C, 6.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	93	DEVICE HRS: 9.89E+06		0
P22923	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P22924	HAST	120°C, 85%R.H.,5.5V		77	100	HOUR	0
		TOTAL:					0
P22925	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS2401 DEC '98 TO92 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2401	B2	9815	DM803085AAA	TO-92	CARSEM

PROCESS Single Poly, Single Metal 0.8 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P22908	INFANT LIFE	125°C, 6.0 VOLTS		234	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	635	DEVICE HRS: 1.44E+06		0
P22923	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P22924	HAST	120°C, 85%R.H.,5.5V		77	100	HOUR	0
		TOTAL:					0
P22925	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS2401 MAR '99 TO-92 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2401	C2	9851	DM832008AIA	TO-92	CARSEM

PROCESS Single Poly, Single Metal 0.6 µm Standard Process

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23371	INFANT LIFE	125°C, 6.0 VOLTS		234	48	HOUR	0
P23401	HIGH VOLTAGE LIFE	125°C, 6.0 VOLTS		77	336	HOUR	0
		125°C, 6.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	81	DEVICE HRS: 1.13E+07		0
P23402	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23403	HAST	120°C, 85%R.H.,5.5V		77	100	HOUR	0
		TOTAL:					0
P23404	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS2502S MAR '99 MONITOR-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS2502	C2	9913	DM842206ALB	8 PIN SOIC	CARSEM

JOB_NO	DESCRIPTION	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS
P23636	HIGH TEMP STORAGE	125°C	238	24	HOUR	
	MOISTURE SOAK	85°C/85% R.H.	238	168	HOUR	
	CONVECTION REFLOW	235°C	238	3	PASS	0
	ELECTRICAL TEST	ELEC TEST	238	0		0
		ELEC TEST	238	0		0
		TOTAL:				0

RELIABILITY MONITOR

DS5002 JAN '99 MONITOR,D.P.-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS5002	B3	9846	DM830493AAB	80 PIN PQFP	CARSEM

PROCESS Single Poly, Single Metal 1.2 µm Buried contacts w/silicided poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23122	INFANT LIFE	125°C, 7.0 VOLTS		199	48	HOUR	1
P23229	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	1
		TOTALS:	FAIL RATE (Fits):	104	DEVICE HRS: 2.98E+07		2
P23073	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P23074	HIGH TEMP STORAGE	125°C		203	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		203	144	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		203	3	PASS	0
		TOTAL:					0
P23230	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23231	BIASED MOISTURE	85/85, 5.5 VOLTS		42	274	HOUR	0
				42	959	HOUR	0
		TOTAL:					0
P23232	AUTOCLAVE	121°C STEAM, UNBIASED		39	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS5002 JAN '99 MONITOR,D.P.-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS5002	B3	9846	DM830493AAB	80 PIN PQFP	CARSEM

PROCESS Single Poly, Single Metal 1.2 µm Buried contacts w/silicided poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf:	60%	Tuse:	55 °C
Ea:	0.7	Vuse:	5.5 Volts
β:	1		

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
P23122	RTRIP	IN PROCESS	IN PROCESS
P23229	BATT LEAKAGE	VERY LARGE (2µA). FA IN PROCESS	IN PROCESS

RELIABILITY MONITOR

DS5002 APR '99 MONITOR,D.P.-CARSEM

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS5002	B3	9905	DM831680AAC	80 PIN PQFP	CARSEM

PROCESS Single Poly, Single Metal 1.2 µm Buried contacts w/silicided poly

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23852	INFANT LIFE	125°C, 7.0 VOLTS		199	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	275	DEVICE HRS: 3.34E+06		0
P23672	HIGH TEMP STORAGE	125°C		203	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		203	144	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		203	3	PASS	0
		TOTAL:					0
P23976	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS80320 JAN '99 MONITOR - ANAM,PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS80C320	B5	9841	DK827694AAD	40 PIN PDIP	ANAM-PI (ATP/AAPI)

PROCESS Single Poly, Single Metal 0.8 µm Poly silicide

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23075	INFANT LIFE	125°C, 7.0 VOLTS		234	48	HOUR	0
P23223	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
P23224	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23225	BIASED MOISTURE	85/85, 5.5 VOLTS		77	274	HOUR	0
				77	959	HOUR	0
		TOTAL:					0
P23226	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS80320 APR '99 MONITOR,ANAM-PI

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS80C320	C4	9903	DK826547AAD	40 PIN PDIP	ANAM-PI (ATP/AAPI)

PROCESS Single Poly, Single Metal 0.6 µm Poly silicide

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23673	INFANT LIFE	125°C, 7.0 VOLTS		234	48	HOUR	0
P23690	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.08E+07		0
P23691	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23693	AUTOCLAVE	121°C STEAM, UNBIASED		40	96	HOUR	0
		TOTAL:					0

RELIABILITY MONITOR

DS87520 NOV '98 MONITOR,D.P.-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS87C520	A13	9832	DN821500AAB	44 PIN PLCC	ANAM-K (ASI/AICL)

PROCESS Double Poly, Single Metal 0.8 µm EPROM process w/silicided poly(s)

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 55 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23309	INFANT LIFE	125°C, 7.0 VOLTS		236	48	HOUR	0
P23593	HIGH VOLTAGE LIFE	125°C, 7.0 VOLTS		77	336	HOUR	0
		125°C, 7.0 VOLTS		77	1000	HOUR	0
		TOTALS:	FAIL RATE (Fits):	30	DEVICE HRS: 3.06E+07		0
P22843	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P22844	HIGH TEMP STORAGE	125°C		241	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		241	240	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		241	3	PASS	0
		TOTAL:					0
P23594	TEMP CYCLE	-55 TO 125°C		40	300	CYCL	0
				40	1000	CYCL	0
		TOTAL:					0
P23595	HAST	130°C,85%R.H.,5.5V		59	100	HOUR	0
		TOTAL:					0
P23596	HIGH TEMP STORAGE	150°C		59	336	HOUR	0
				59	1000	HOUR	1
		TOTAL:					1

RELIABILITY MONITOR

DS87520 NOV '98 MONITOR,D.P.-ANAM,K.

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS87C520	A13	9832	DN821500AAB	44 PIN PLCC	ANAM-K (ASI/AICL)

PROCESS Double Poly, Single Metal 0.8 µm EPROM process w/silicided poly(s)

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION	QUANTITY	READPOINT	UNITS	NO OF FAILS

JOB NO	FAILURE MODE	FAILURE MECHANISM	CORRECTIVE ACTION
P23596	OP40	PROCESS/DESIGN INTERACTION	REV 15 WAS RELEASED TO CORRECT THIS PROBLEM

RELIABILITY MONITOR

DS87520 FEB'99 MONITOR,D.P.-ANAM,K

DEVICE	REVISION	DATE CODE	LOT NUMBER	PACKAGE	ASSEMBLY SITE
DS87C520	A11	9838	DN825394AAB	44 PIN PLCC	ANAM-K (ASI/AICL)

PROCESS Double Poly, Single Metal 0.8 µm EPROM process w/silicided poly(s)

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60%
Ea: 0.7
β: 1

Tuse: 55 °C
Vuse: 5.5 Volts

JOB NO	DESCRIPT	CONDITION		QUANTITY	READPOINT	UNITS	NO OF FAILS
P23415	INFANT LIFE	125°C, 7.0 VOLTS		235	48	HOUR	0
		TOTALS:	FAIL RATE (Fits):	232	DEVICE HRS:	3.94E+06	0
P23306	ULTRASOUND	J-STD-020		4	1	WEEK	0
		TOTAL:					0
P23307	HIGH TEMP STORAGE	125°C		239	24	HOUR	
	MOISTURE SOAK	30°C/60% R.H.		239	240	HOUR	
	SOLDER HEAT	HTC VAPOR PHASE		239	3	PASS	0
		TOTAL:					0
P23855	HAST	130°C,85%R.H.,5.5V		59	100	HOUR	0
		TOTAL:					0