

# RELIABILITY MONITOR

PROCESS: 0.6  $\mu$ m Double Poly, Single Metal (Ti/TiN layers used on all Metals)

## STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2502	C3	JUN '00	25568	0011	Carsem S	DM941230AG	SOIC	48	231	0
DS2502	C3	MAR '00	25253	0005	Carsem S	DM941226AA	SOIC	48	232	0

## STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2502	C3	MAR '00	25254	0005	Carsem S	DM941226AA	SOIC	336	77	0
DS2502	C3	JUN '00	25569	0011	Carsem S	DM941230AG	SOIC	336	77	0
DS2502	C3	MAR '00	25254	0005	Carsem S	DM941226AA	SOIC	1000	77	0
DS2502	C3	JUN '00	25569	0011	Carsem S	DM941230AG	SOIC	1000	77	0

TOTALS FOR: 0.6  $\mu$ m Double Poly, Single Metal (Ti/Ti) FAIL RATE (Fits): 40 DEVICE HRS: 2.26E+07 0

# RELIABILITY MONITOR

PROCESS: 0.6  $\mu$ m Single Poly, Single Metal

## STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS21Q43	A3-A	JUN '00	25504	0014	ATK (Anam, K)	DN004571AAB	LQFP	48	224	0
DS21Q43	A3-A	SEP '00	25950	0031	Stats	DC022318AAD	LQFP	48	231	0

## STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS21Q43	A3-A	JUN '00	25505	0014	ATK (Anam, K)	DN004571AAB	LQFP	336	77	0

TOTALS FOR: 0.6  $\mu$ m Single Poly, Single Metal FAIL RATE (Fits): 152 DEVICE HRS: 6.03E+06 0

## RELIABILITY MONITOR

PROCESS: 0.6  $\mu$ m Single Poly, Single Metal (Ti/TiN layers used on all Metals)

### STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2118M	B1	SEP '00	25943	0033	ATK (Anam, K)	DN020718AAD	SSOP	48	231	0
DS2401	C2	DEC '00	26337	0035	Fastech	DM014457AD	TO92	48	234	0
DS2401	C2	SEP '00	25965	0034	Fastech	DA005635AKA	TO92	48	234	0
DS5002	C5	JUL '00	25826	0027	ATK (Anam, K)	DN012259AAL	MQFP	48	198	0
DS5002	C4	APR '00	25430	0004	Carsem	DM925587AAF	MQFP	48	199	0
DS80C320	C5	JAN '00	25014	0001	CPS (ChipPac, China)	DH928322BAA	PDIP	48	234	0
DS80C320	C5	OCT '00	26064	0038	CPS (ChipPac, China)	DH026369ABA	PDIP	48	234	0

### STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2118M	B1	SEP '00	25944	0033	ATK (Anam, K)	DN020718AAD	SSOP	336	77	0
DS2118M	B1	SEP '00	25944	0033	ATK (Anam, K)	DN020718AAD	SSOP	1000	76	0
DS2401	C2	SEP '00	25966	0034	Fastech	DA005635AKA	TO92	336	77	0
DS2401	C2	SEP '00	25966	0034	Fastech	DA005635AKA	TO92	1000	77	0
DS5002	C5	JUL '00	25827	0027	ATK (Anam, K)	DN012259AAL	MQFP	336	77	0
DS5002	C4	APR '00	25431	0004	Carsem	DM925587AAF	MQFP	336	77	0
DS5002	C4	APR '00	25431	0004	Carsem	DM925587AAF	MQFP	1000	76	0
DS80C320	C5	OCT '00	26065	0038	CPS (ChipPac, China)	DH026369ABA	PDIP	336	77	0
DS80C320	C5	JAN '00	25015	0001	CPS (ChipPac, China)	DH928322BAA	PDIP	336	77	0

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DS80C320 C5	JAN '00	25015	0001	CPS (ChipPac, China)	DH928322BAA	PDIP	1000	77	0
TOTALS FOR:	0.6 $\mu$ m	Single Poly, Single Metal (Ti/Ti		FAIL RATE (Fits):	11	DEVICE HRS: 8.32E+07			0

# RELIABILITY MONITOR

PROCESS: 0.8  $\mu$ m Double Poly, Double Metal (Ti/TiN layers used on all Metals)

## STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2154	A2	JUN '00	25620	0022	ATK (Anam, K)	DN012234ABA	LQFP	48	233	0
DS2154	A2	SEP '00	25958	0034	ATP (Anam, PI)	DK022283AAA	LQFP	48	191	0

## STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2154	A2	JUN '00	25621	0022	ATK (Anam, K)	DN012234ABA	LQFP	336	75	0
DS2154	A2	JUN '00	25621	0022	ATK (Anam, K)	DN012234ABA	LQFP	1000	74	0
DS2154	A2	SEP '00	25959	0034	ATP (Anam, PI)	DK022283AAA	LQFP	336	60	0
DS2154	A2	SEP '00	25959	0034	ATP (Anam, PI)	DK022283AAA	LQFP	1000	60	0

TOTALS FOR: 0.8  $\mu$ m Double Poly, Double Metal (Ti/T) FAIL RATE (Fits): 17 DEVICE HRS: 5.36E+07 0

# RELIABILITY MONITOR

PROCESS: 0.8  $\mu$ m Double Poly, Single Metal

## STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS87C520	A14	FEB '00	25120	0004	ATP (Anam, PI)	DK935356AAB	PLCC	48	228	1
DS87C520	A15	AUG '00	25866	0027	OSEP	DE013425AAD	PLCC	48	234	0

## STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS87C520	A14	FEB '00	25121	0004	ATP (Anam, PI)	DK935356AAB	PLCC	336	77	1
DS87C520	A14	FEB '00	25121	0004	ATP (Anam, PI)	DK935356AAB	PLCC	1000	75	1

TOTALS FOR: 0.8  $\mu$ m Double Poly, Single Metal      FAIL RATE (Fits): 125      DEVICE HRS: 3.35E+07      3

# RELIABILITY MONITOR

PROCESS: 0.8  $\mu$ m Single Poly, Double Metal (Ti/TiN layers used on all Metals)

## STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1302	A3	AUG '00	25931	0032	CPS (ChipPac, China)	DH020619AAA	PDIP	48	234	0
DS1302	A3	JUN '00	25535	0018	CPS (ChipPac, China)	DH008331AAA	PDIP	48	234	0
DS1302	A3	MAR '00	25211	0006	CPS (ChipPac, China)	DH945115AAB	PDIP	48	234	1

## STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1302	A3	AUG '00	25932	0032	CPS (ChipPac, China)	DH020619AAA	PDIP	336	77	0
DS1302	A3	JUN '00	25536	0018	CPS (ChipPac, China)	DH008331AAA	PDIP	336	77	0
DS1302	A3	MAR '00	25212	0006	CPS (ChipPac, China)	DH945115AAB	PDIP	336	77	0
DS1302	A3	MAR '00	25212	0006	CPS (ChipPac, China)	DH945115AAB	PDIP	1000	76	0
DS1302	A3	JUN '00	25536	0018	CPS (ChipPac, China)	DH008331AAA	PDIP	1000	77	0

TOTALS FOR: 0.8  $\mu$ m Single Poly, Double Metal (Ti/Ti) FAIL RATE (Fits): 74 DEVICE HRS: 2.73E+07 1

# RELIABILITY MONITOR

PROCESS: 0.8 µm Single Poly, Single Metal

## STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1232	C2-L	JAN '00	25022	9948	ATP (Anam, PI)	DK933191AAJ	SOIC	48	234	2
DS1232	C2-L	APR '00	25421	0011	OSEP	DE952427AAD	SOIC	48	233	0
DS1232	C2-L	OCT '00	26089	0039	OSEP	DE028679ADB	SOIC	48	232	0
DS1232	C2-L	JUL '00	25787	0024	OSEP	DE014522ADB	SOIC	48	234	0
DS1621	A7	MAR '00	25220	9950	OSEP	DE940040AAC	SOIC	48	237	0
DS21S07	C1-	MAY '00	25446	0013	Carsem S	DM002285AAF	TSSOP	48	234	0
DS2434	D1	AUG '99	24391	9837	Carsem	DM811482AA	TO226 (PR35)	48	234	0

## STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1232	C2-L	JAN '00	25023	9948	ATP (Anam, PI)	DK933191AAJ	SOIC	336	77	0
DS1232	C2-L	JAN '00	25023	9948	ATP (Anam, PI)	DK933191AAJ	SOIC	1000	73	0
DS1232	C2-L	APR '00	25422	0011	OSEP	DE952427AAD	SOIC	336	77	0
DS1232	C2-L	JUL '00	25788	0024	OSEP	DE014522ADB	SOIC	336	77	0
DS1232	C2-L	APR '00	25422	0011	OSEP	DE952427AAD	SOIC	1000	77	0
DS1232	C2-L	JUL '00	25788	0024	OSEP	DE014522ADB	SOIC	1000	77	0
DS1621	A7	MAR '00	25221	9950	OSEP	DE940040AAC	SOIC	336	77	0
DS1621	A7	MAR '00	25221	9950	OSEP	DE940040AAC	SOIC	1000	77	0
DS21S07	C1-	MAY '00	25447	0013	Carsem S	DM002285AAF	TSSOP	336	77	0

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DS21S07	C1-	MAY '00	25447	0013	Carsem S	DM002285AAF	TSSOP	1000	77	0
DS2434	D1	AUG '99	24392	9837	Carsem	DM811482AA	TO226 (PR35)	336	77	0
DS2434	D1	AUG '99	24392	9837	Carsem	DM811482AA	TO226 (PR35)	1000	77	0
TOTALS FOR:		0.8 $\mu$ m Single Poly, Single Metal				FAIL RATE (Fits):	17	DEVICE HRS:	1.87E+08	2

# RELIABILITY MONITOR

PROCESS: 1.2  $\mu$ m Single Poly, Single Metal

STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1267	A2	FEB '00	25175	9930	ATP (Anam, PI)	DK904472ADF	TSSOP	48	226	0

STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1267	A2	FEB '00	25176	9930	ATP (Anam, PI)	DK904472ADF	TSSOP	336	77	0

TOTALS FOR: 1.2  $\mu$ m Single Poly, Single Metal      FAIL RATE (Fits): 194      DEVICE HRS: 4.72E+06      0

# RELIABILITY MONITOR

PROCESS: 2.0 µm Single Poly, Single Metal

STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2175	D1	OCT '00	26108	0042	ATP (Anam, PI)	DK031506AAC	SOIC	48	234	0
DS2181A	A2	JUL '00	25818	0016	OSEP	DE004552ABD	PLCC	48	237	0

TOTALS FOR: 2.0 µm Single Poly, Single Metal FAIL RATE (Fits): 116 DEVICE HRS: 7.90E+06 0

# RELIABILITY MONITOR

PROCESS: 5.0  $\mu$ m Single Poly, Single Metal

## STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2108	B7	MAY '00	25525	0019	ATP (Anam, PI)	DK007198AAF	SOIC	48	231	0
DS2108	B7	AUG '00	25857	0029	ATP (Anam, PI)	DK016058AA	SOIC	48	231	0

## STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2108	B7	AUG '00	25858	0029	ATP (Anam, PI)	DK016058AA	SOIC	336	77	0
DS2108	B7	MAY '00	25526	0019	ATP (Anam, PI)	DK007198AAF	SOIC	336	77	0
DS2108	B7	AUG '00	25858	0029	ATP (Anam, PI)	DK016058AA	SOIC	1000	76	0
DS2108	B7	MAY '00	25526	0019	ATP (Anam, PI)	DK007198AAF	SOIC	1000	77	0

TOTALS FOR: 5.0  $\mu$ m Single Poly, Single Metal      FAIL RATE (Fits): 41      DEVICE HRS: 2.23E+07      0