

RELIABILITY MONITOR

PROCESS: 0.6 μ 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	C2	JUN '99	24169	9915	Carsem S	DM846764AA	SOIC	48	234	0
DS2502	C2	SEP '99	24480	9918	Carsem S	DM849359AC	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	C2	SEP '99	24481	9918	Carsem S	DM849359AC	SOIC	336	77	0
DS2502	C2	JUN '99	24174	9915	Carsem S	DM846764AA	SOIC	336	77	0
DS2502	C2	JUN '99	24174	9915	Carsem S	DM846764AA	SOIC	1000	77	0
DS2502	C2	SEP '99	24481	9918	Carsem S	DM849359AC	SOIC	1000	77	0

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

RELIABILITY MONITOR

PROCESS: 0.6 µm 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	MAR '00	25233	5	ASI (Anam, K)	ZN946350AAG	SSOP	48	234	0
DS2401	C2	MAR '00	25245	7	Fastech	DA925802AJA	TO92	48	234	0
DS80C320	C5	OCT '99	24584	9938	CPS (ChipPac, China)	DH925592AAB	PDIP	48	234	0
DS80C320	C5	JAN '00	25014	1	CPS (ChipPac, China)	DH928322BAA	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	MAR '00	25234	5	ASI (Anam, K)	ZN946350AAG	SSOP	336	75	0
DS2118M	B1	MAR '00	25234	5	ASI (Anam, K)	ZN946350AAG	SSOP	1000	75	0
DS2401	C2	MAR '00	25246	7	Fastech	DA925802AJA	TO92	336	77	0
DS2401	C2	MAR '00	25246	7	Fastech	DA925802AJA	TO92	1000	77	0
DS80C320	C5	OCT '99	24585	9938	CPS (ChipPac, China)	DH925592AAB	PDIP	336	77	0
DS80C320	C5	JAN '00	25015	1	CPS (ChipPac, China)	DH928322BAA	PDIP	336	77	0
DS80C320	C5	OCT '99	24585	9938	CPS (ChipPac, China)	DH925592AAB	PDIP	1000	77	0

TOTALS FOR: 0.6 µm Single Poly, Single Metal (Ti/Ti) FAIL RATE (Fits): 14 DEVICE HRS: 6.56E+07 0

RELIABILITY MONITOR

PROCESS: 0.8 μ m Double Poly, Double Metal

STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE	FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2154	A2	MAR '00	25241	7	ATP (Anam, PI)	DK948587AAA	LQFP	48	234	1

STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE ASSEMBLY CODE	FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2154	A2	MAR '00	25242	7	ATP (Anam, PI)	DK948587AAA	LQFP	336	90	0

TOTALS FOR: 0.8 μ m Double Poly, Double Metal FAIL RATE (Fits): 140 DEVICE HRS: 1.45E+07 1

RELIABILITY MONITOR

PROCESS: 0.8 μ 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	NOV '99	24800	9931	ASl (Anam, K)	DN901118AAB	LCC	48	219	0
DS87C520	A14	NOV '99	24800	9931	ASl (Anam, K)	DN901118AAB	LCC	48	219	0

STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS87C520	A14	NOV '99	24801	9931	ASl (Anam, K)	DN901118AAB	LCC	336	77	0
DS87C520	A14	NOV '99	24801	9931	ASl (Anam, K)	DN901118AAB	LCC	336	77	0
DS87C520	A14	NOV '99	24801	9931	ASl (Anam, K)	DN901118AAB	LCC	1000	77	0
DS87C520	A14	NOV '99	24801	9931	ASl (Anam, K)	DN901118AAB	LCC	1000	77	0

TOTALS FOR: 0.8 μ m Double Poly, Single Metal FAIL RATE (Fits): 15 DEVICE HRS: 6.11E+07 0

RELIABILITY MONITOR

PROCESS: 0.8 µm Single Poly, Double Metal

STRESS: INFANT LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1302	A3	MAR '00	25211	6	CPS (ChipPac, China)	DH945115AAB	PDIP	48	234	1
DS1302	A3	JUN '00	25535	18	CPS (ChipPac, China)	DH008331AAA	PDIP	48	234	0
DS17485	A4-5	AUG '99	24362	9906	ATP (Anam, PI)	DK838211AAF	SOIC	48	231	0
DS1803	A2	AUG '99	24370	9909	ATP (Anam, PI)	DK830515AAB	SOIC	48	234	0
DS1803	A2	NOV '99	24738	9923	ATP (Anam, PI)	DK913631AAA	SOIC	48	224	0
DS1803	A2	FEB '99	23928	9835	CPK (ChipPac, Korea)	DL818111AAB	SOIC	48	234	0
DS1803	A2	NOV '98	23173	9833	CPK (ChipPac, Korea)	DL820412AAB	SOIC	48	234	0

STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1302	A3	MAR '00	25212	6	CPS (ChipPac, China)	DH945115AAB	PDIP	336	77	0
DS17485	A4-5	AUG '99	24363	9906	ATP (Anam, PI)	DK838211AAF	SOIC	336	77	1
DS17485	A4-5	AUG '99	24363	9906	ATP (Anam, PI)	DK838211AAF	SOIC	1000	76	0
DS1803	A2	AUG '99	24371	9909	ATP (Anam, PI)	DK830515AAB	SOIC	336	77	0
DS1803	A2	NOV '99	24739	9923	ATP (Anam, PI)	DK913631AAA	SOIC	336	77	0
DS1803	A2	AUG '99	24371	9909	ATP (Anam, PI)	DK830515AAB	SOIC	1000	77	0
DS1803	A2	NOV '99	24739	9923	ATP (Anam, PI)	DK913631AAA	SOIC	1000	77	0
DS1803	A2	FEB '99	24003	9835	CPK (ChipPac, Korea)	DL818111AAB	SOIC	336	77	1
DS1803	A2	NOV '98	23923	9833	CPK (ChipPac, Korea)	DL820412AAB	SOIC	336	77	0

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DS1803	A2	NOV '98	23923	9833	CPK (ChipPac, Korea)	DL820412AAB	SOIC	1000	77	0
DS1803	A2	FEB '99	24003	9835	CPK (ChipPac, Korea)	DL818111AAB	SOIC	1000	76	0

TOTALS FOR: 0.8 μ m Single Poly, Double Metal FAIL RATE (Fits): 26 DEVICE HRS: 1.59E+08 3

RELIABILITY MONITOR

PROCESS: 0.8 μ 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
DS1232	C2-L	APR '99	24189	9848	CPK (ChipPac, Korea)	DL829603AAC	SOIC	48	234	0
DS1621	A7	JUN '99	24321	9915	ATP (Anam, PI)	DK815282AAB	SOIC	48	237	0
DS2109	A7	DEC '99	24808	9842	Carsem	DM812689AA	SOIC	48	232	2
DS21S07	C1-	FEB '00	25098	9937	ATP (Anam, PI)	DK926747AAP	TSSOP	48	234	0
DS21S07	C1-	NOV '99	24730	9908	ATP (Anam, PI)	DK836680AAF	TSSOP	48	231	0
DS2434	D1	FEB '00	25111	1	Carsem	DM831669AA	TO226 (PR35)	48	237	1

STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS1232	C2-L	APR '99	24190	9848	CPK (ChipPac, Korea)	DL829603AAC	SOIC	336	77	0
DS1232	C2-L	APR '99	24190	9848	CPK (ChipPac, Korea)	DL829603AAC	SOIC	1000	77	0
DS1621	A7	JUN '99	24322	9915	ATP (Anam, PI)	DK815282AAB	SOIC	336	77	0
DS1621	A7	JUN '99	24322	9915	ATP (Anam, PI)	DK815282AAB	SOIC	1000	77	0
DS21S07	C1-	FEB '00	25099	9937	ATP (Anam, PI)	DK926747AAP	TSSOP	336	77	1
DS21S07	C1-	NOV '99	24731	9908	ATP (Anam, PI)	DK836680AAF	TSSOP	336	77	0
DS21S07	C1-	NOV '99	24731	9908	ATP (Anam, PI)	DK836680AAF	TSSOP	1000	77	0
DS2434	D1	FEB '00	25112	1	Carsem	DM831669AA	TO226 (PR35)	336	77	0
DS2434	D1	FEB '00	25112	1	Carsem	DM831669AA	TO226 (PR35)	1000	77	0

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TOTALS FOR: 0.8 μ m Single Poly, Single Metal FAIL RATE (Fits): 38 DEVICE HRS: 1.40E+08 4

RELIABILITY MONITOR

PROCESS: 1.2 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
DS1000	E3	OCT '99	24791	9944	CPS (ChipPac, China)	DH927108AJC	PDIP	48	234	2
DS1000	E3	JAN '00	25000	2	CPS (ChipPac, China)	DH938700AB	PDIP	48	234	0
DS1000	E3	APR '00	25406	9	CPS (ChipPac, China)	DH949661AEA	PDIP	48	234	0
DS1233	A5	APR '99	23773	9911	Carsem	DM837033AB	SOT223	48	229	0
DS1233	A5	JAN '00	25036	9952	Carsem	DM929359AB	SOT223	48	229	0
DS1267	A1	AUG '99	24343	9823	ATP (Anam, PI)	DK807766AAE	TSSOP	48	228	0
DS1869	A3	SEP '99	24441	9907	NSEB	DJ824247ABA	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
DS1000	E3	OCT '99	24792	9944	CPS (ChipPac, China)	DH927108AJC	PDIP	336	77	0
DS1000	E3	APR '00	25407	9	CPS (ChipPac, China)	DH949661AEA	PDIP	336	77	0
DS1000	E3	JAN '00	25001	2	CPS (ChipPac, China)	DH938700AB	PDIP	336	77	0
DS1000	E3	OCT '99	24792	9944	CPS (ChipPac, China)	DH927108AJC	PDIP	1000	77	0
DS1000	E3	JAN '00	25001	2	CPS (ChipPac, China)	DH938700AB	PDIP	1000	77	0
DS1233	A5	JAN '00	25037	9952	Carsem	DM929359AB	SOT223	336	77	0
DS1233	A5	APR '99	23939	9911	Carsem	DM837033AB	SOT223	336	77	0
DS1233	A5	APR '99	23939	9911	Carsem	DM837033AB	SOT223	1000	77	0
DS1267	A1	AUG '99	24344	9823	ATP (Anam, PI)	DK807766AAE	TSSOP	336	77	0

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DS1267	A1	AUG '99	24344	9823	ATP (Anam, PI)	DK807766AAE	TSSOP	1000	77	0
DS1869	A3	SEP '99	24442	9907	NSEB	DJ824247ABA	SOIC	336	75	0
DS1869	A3	SEP '99	24442	9907	NSEB	DJ824247ABA	SOIC	1000	75	0
TOTALS FOR:		1.2 μ m Single Poly, Single Metal				FAIL RATE (Fits):	20	DEVICE HRS:	1.58E+08	2

RELIABILITY MONITOR

PROCESS: 2.0 μ 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
DS2175	D1	JAN '00	25044	1	ATP (Anam, PI)	DK941179AAD	SOIC	48	234	0

STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2175	D1	JAN '00	25045	1	ATP (Anam, PI)	DK941179AAD	SOIC	336	77	0
DS2175	D1	JAN '00	25045	1	ATP (Anam, PI)	DK941179AAD	SOIC	1000	77	0

TOTALS FOR: 2.0 μ m Single Poly, Single Metal FAIL RATE (Fits): 30 DEVICE HRS: 3.08E+07 0

RELIABILITY MONITOR

PROCESS: 5.0 μ 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	FEB '00	25106	9951	ATP (Anam, PI)	DK940069AAC	SOIC	48	234	2

STRESS: HIGH VOLTAGE LIFE

PRODUCT	REV	MONITOR DATE	JOB NO	DATE CODE	ASSEMBLY FACILITY	LOT NO.	PACKAGE	READ POINT	QTY	FAILS
DS2108	B7	FEB '00	25107	9951	ATP (Anam, PI)	DK940069AAC	SOIC	336	77	0
DS2108	B7	FEB '00	25107	9951	ATP (Anam, PI)	DK940069AAC	SOIC	1000	77	0

TOTALS FOR: 5.0 μ m Single Poly, Single Metal FAIL RATE (Fits): 278 DEVICE HRS: 1.12E+07 2