

RELIABILITY MONITOR REPORT
FOR

Chartered 0.35 μ 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 specific products in this process monitor are:

DS26303	DS26334	DS26522	DS3112	DS31256
DS3254				

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 51349** **FITS: 2.2**

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

Cf: 60% **Ea: 0.7** **Tu: 25 °C**

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 10/1/2006 and 9/30/2007 .

Device Information:

Process: Chartered 0.35µm Process
Interconnect: Aluminum / 1% Silicon / 0.5% Copper
Gate Oxide Thickness: 75 Å

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0604	DS26522	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0632	DS26334	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0632	DS26303	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0641	DS3254	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0650	DS26522	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0650	DS26522	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0651	DS31256	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0651	DS31256	125C, 3.5 VOLTS	1000 HRS	45	0	
HIGH TEMP OP LIFE	0712	DS3112	125C, 3.5 VOLTS	1000 HRS	77	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0604	DS26522	150C	1000 HRS	77	0	
STORAGE LIFE	0650	DS26522	150C	1000 HRS	77	0	
STORAGE LIFE	0650	DS26522	150C	1000 HRS	77	0	
STORAGE LIFE	0651	DS31256	150C	1000 HRS	77	0	
STORAGE LIFE	0651	DS31256	150C	1000 HRS	77	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0604	DS26522	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0650	DS26522	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0650	DS26522	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0651	DS31256	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE	0651	DS31256	-55C TO 125C	1000 CYS	77	0	
					Total:	0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
BIASED MOISTURE CYCLING	0604	DS26522	85/85, 3.5 VOLTS	1000 HRS	45	0	
BIASED MOISTURE CYCLING	0650	DS26522	85/85, 3.5 VOLTS	1000 HRS	40	0	
BIASED MOISTURE CYCLING	0650	DS26522	85/85, 3.5 VOLTS	1000 HRS	40	0	
BIASED MOISTURE	0651	DS31256	85/85, 3.5 VOLTS	1000 HRS	45	0	
BIASED MOISTURE	0651	DS31256	85/85, 3.5 VOLTS	1000 HRS	45	0	
					Total:	0	

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