

**RELIABILITY MONITOR REPORT
FOR**

5.0 μm 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 products covered by this process monitor are:

DS1808	DS2108	DS229	DS232	DS275
DS276				

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 9048** **FITS: 12.6**

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 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 07/01/2003 and 06/30/2004 .

Device Information:

Process: 5.0 µm Process
 Interconnect: Aluminum / 1% Silicon / 0.5% Copper
 Gate Oxide Thickness: 225 Å

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0328	DS275	125C, 5.5 VOLTS	1000 HRS		0	
				Total:		0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0328	DS275	150C	1000 HRS		0	
				Total:		0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0328	DS275	-55C TO 125C	1000 CYS		0	
				Total:		0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0328	DS275	130C, 85%R.H.,5.5V	96 HRS		0	
				Total:		0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
AUTOCLAVE	0328	DS275	121C, 2 ATM STEAM, UNBIASED	168 HRS		0	
				Total:		0	

FAILURE RATE:

MTTF (YRS): 9048

FITS: 12.6