



7/20/2007

**RELIABILITY MONITOR REPORT  
FOR**

**TSMC 0.18 $\mu$ m Process 8"**

**Dallas Semiconductor**

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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:

DS26518	DS3102	DS3104	DS3105	DS32506
DS32508	DS32512	DS33R11	DS33R41	DS33X162
DS33Z11	DS33Z41	DS33Z44	DS33ZH11	DSRAD1

The calculated failure rate for devices using this process is:

**FAILURE RATE:                    MTTF (YRS): 5288                    FITS: 21.6**

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 7/1/2006 and 6/30/2007 .

**Device Information:**

Process:                    TSMC 0.18µm Process 8"  
Interconnect:             Aluminum / 1% Silicon / 0.5% Copper  
Gate Oxide Thickness:

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0649	DS33X162	125C, 2.0V (PSB) & 3.5V (PSA)	1000 HRS	45	0	
				<b>Total:</b>		<b>0</b>	

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