



4/8/2009

**RELIABILITY MONITOR REPORT  
FOR**

**DAL 0.35 $\mu$ m "D" Silicon Gate CMOS**

**MAXIM Integrated Products**

120 San Gabriel Dr.  
Sunnyvale, CA 94086

**This Report was prepared by  
Maxim 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:

DS1080CL	DS1080L	DS1081L	DS1181L
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The calculated failure rate for devices using this process is:

**FAILURE RATE:**                      **MTTF (YRS): 24911**                      **FITS: 4.6**

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

**Cf: 60%**                      **Ea: 0.7**                      **Tu: 25 °C**

The reliability data follows and in this section is the detailed reliability data by stress. The reliability data section includes the latest data available. This report covers data between 7/1/2007 and 6/30/2008 .

**Process Information:**

Process Description:                      DAL 0.35µm "D" Silicon Gate CMOS

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0732	DS1080L	125C, 3.6 VOLTS	1000 HRS	45	0	IJ549628BE
HIGH TEMP OP LIFE	0734	DS1081L	125C, 3.6 VOLTS	1000 HRS	77	0	VK715647ADO
HIGH TEMP OP LIFE	0736	DS1181L	125C, 3.6 VOLTS	1000 HRS	45	0	QK805647BBA-NPI
HIGH TEMP OP LIFE	0811	DS1080CL	125C, 3.6 VOLTS	1000 HRS	45	0	QD823625BB-NPI
<b>Total:</b>						<b>0</b>	

**STORAGE LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0732	DS1080L	150C	1000 HRS	55	0	IJ549628BE
STORAGE LIFE	0734	DS1081L	150C	1000 HRS	77	0	VK715647ADO
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	0732	DS1080L	-65C TO 150C	500 CYS	77	0	IJ549628BE
BOND STRENGTH	0732	DS1080L	MIL-STD-883-2011 : COND D	40 WIRES	5	0	IJ549628BE
TEMP CYCLE, 5' RAMP, 10' DWELL	0734	DS1081L	-65C TO 150C	500 CYS	77	0	VK715647ADO
BOND STRENGTH	0734	DS1081L	MIL-STD-883-2011 : COND D	40 WIRES	5	0	VK715647ADO
<b>Total:</b>						<b>0</b>	

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**TEMPERATURE HUMIDITY BIAS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HAST	0732	DS1080L	130C, 85%R.H.,3.5V	96	HRS	77	0 IJ549628BE
HAST	0734	DS1081L	130C, 85%R.H.,3.5V	96	HRS	77	0 VK715647ADO
<b>Total:</b>						<b>0</b>	

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**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
AUTOCLAVE	0732	DS1080L	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0 IJ549628BE
AUTOCLAVE	0734	DS1081L	121C, 2 ATM STEAM, UNBIASED	168	HRS	77	0 VK715647ADO
<b>Total:</b>						<b>0</b>	

**FAILURE RATE:****MTTF (YRS): 24911****FITS: 4.6**