

10/23/2014



**RELIABILITY MONITOR REPORT
FOR**

San Antonio 0.4 μ m Silicon Gate (E35)

MAXIM INTEGRATED

**160 RIO ROBLES
SAN JOSE, CA 95134**

**This Report was prepared by
MAXIM INTEGRATED 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:

DS28E01

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 28201 QUANTITY: 240 FAILS: 0 FITS: 4.0

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 10/1/2013 and 9/30/2014 .

Process Information:

Process Description: San Antonio 0.4µm Silicon Gate (E35)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1342	DS28E01	125C, 5.25 VOLTS	1000 HRS	80	0	ZJ390802ABA-Q1
HIGH TEMP OP LIFE	1342	DS28E01	125C, 5.25 VOLTS	1000 HRS	80	0	ZJ390802ABA-Q2
HIGH TEMP OP LIFE	1342	DS28E01	125C, 5.25 VOLTS	1000 HRS	80	0	ZJ390802ABA-Q3
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1342	DS28E01	150°C	1000 HRS	77	0	ZJ390802ABA-Q1
STORAGE LIFE	1342	DS28E01	150°C	1000 HRS	77	0	ZJ390802ABA-Q2
STORAGE LIFE	1342	DS28E01	150°C	1000 HRS	77	0	ZJ390802ABA-Q3
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BOND PULL STRENGTH	1342	DS28E01	>=3 GMS	500 WIRES	82	0	ZJ390802ABA-Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1342	DS28E01	-55C TO +125C (Condition B)	1000 CYS	82	0	ZJ390802ABA-Q1
BOND PULL STRENGTH	1342	DS28E01	>=3 GMS	500 WIRES	82	0	ZJ390802ABA-Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1342	DS28E01	-55C TO +125C (Condition B)	1000 CYS	82	0	ZJ390802ABA-Q2
BOND PULL STRENGTH	1342	DS28E01	>=3 GMS	500 WIRES	82	0	ZJ390802ABA-Q3
TEMP CYCLE, 5' RAMP, 10' DWELL	1342	DS28E01	-55C TO +125C (Condition B)	1000 CYS	82	0	ZJ390802ABA-Q3

Total: 0

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HAST	1342	DS28E01	130C, 85%R.H., 5.25V	100 HRS	45	0	ZJ390802ABA-Q1
HAST	1342	DS28E01	130C, 85%R.H., 5.25V	100 HRS	45	0	ZJ390802ABA-Q2
HAST	1342	DS28E01	130C, 85%R.H., 5.25V	100 HRS	45	0	ZJ390802ABA-Q3
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HAST, NO BIAS	1342	DS28E01	130C, 85% R.H.	300 HRS	77	0	ZJ390802ABA-Q1
HAST, NO BIAS	1342	DS28E01	130C, 85% R.H.	300 HRS	77	0	ZJ390802ABA-Q2
HAST, NO BIAS	1342	DS28E01	130C, 85% R.H.	300 HRS	77	0	ZJ390802ABA-Q3
Total:						0	

FAILURE RATE: MTTF (YRS): 28201 QUANTITY: 240 FAILS: 0 FITS: 4.0