



5/9/2009

**RELIABILITY MONITOR REPORT
FOR**

MFN SiGe HBT BiPolar

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:

MAX109EHF+	MAX109EHJ+	MAX2388ETC+	MAX2640AUT+	MAX2680EUT+
MAX2680EUT+(MAX2680EUT+T	MAX2750AUA+	MAX3801UGG	

The calculated failure rate for devices using this process is:

FAILURE RATE: **MTTF (YRS): 69178** **FITS: 1.7**

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 and

Process Information:

Process Description: MFN SiGe HBT BiPolar

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	0723	MAX2680EUT+T	135C	1000 HRS	77	0	NR3AEA078D#
HIGH TEMP OP LIFE	0724	MAX2680EUT+	135C	1000 HRS	79	0	NR3AE3019J#
HIGH TEMP OP LIFE	0742	MAX2750AUA+	135C	1000 HRS	74	0	N7CBHA010D#
HIGH TEMP OP LIFE	0747	MAX109EHF+	135C	524 HRS	45	0	NZT0D3005J
HIGH TEMP OP LIFE	0747	MAX109EHF+	135C	1000 HRS	45	0	NZT0D3005K
HIGH TEMP OP LIFE	0747	MAX109EHF+	135C	1000 HRS	45	0	NZT0D3005L
HIGH TEMP OP LIFE	0836	MAX2640AUT+T	135C	700 HRS	77	0	NT3BD3085F
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	0739	MAX2680EUT+T	150C	1000 HRS	45	0	NR3AEA079D#
STORAGE LIFE	0801	MAX3801UGG	150C	1000 HRS	80	0	N250AA219B
STORAGE LIFE	0836	MAX2640AUT+T	150C	1000 HRS	45	0	NT3BD3085FA
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	0723	MAX2680EUT+T	-65C TO 150C	1000 CYS	80	0	NR3AEA078D#
TEMP CYCLE, 5' RAMP, 10' DWELL	0724	MAX2680EUT+(AUT+)	-65C TO 150C	1000 CYS	79	0	NR3AE3019J#
TEMP CYCLE, 5' RAMP, 10' DWELL	0739	MAX2680EUT+T	-65C TO 150C	1000 CYS	80	0	NR3AEA079D#

TEMP CYCLE, 5' RAMP, 10' DWELL	0801	MAX3801UGG	-65C TO 150C	1000	CYS	80	0	N250AA219B
TEMP CYCLE, 5' RAMP, 10' DWELL	0836	MAX2640AUT+T	-65C TO 150C	500	CYS	77	0	NT3BD3085FA
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	0534	MAX2388ETC+	85 C/85% R.H.	1000 HRS	45	0	N22DXA014QL	
MOISTURE SOAK	0534	MAX2388ETC+	85 C/85% R.H.	1000 HRS	45	0	N22DXA014QM	
MOISTURE SOAK	0534	MAX2388ETC+	85 C/85% R.H.	1000 HRS	45	0	N22DXA014QN	
MOISTURE SOAK	0747	MAX109EHF+	85 C/85% R.H.	500 HRS	45	0	NZT0D3005J	
MOISTURE SOAK	0747	MAX109EHF+	85 C/85% R.H.	500 HRS	45	0	NZT0D3005K	
MOISTURE SOAK	0747	MAX109EHJ+	85 C/85% R.H.	500 HRS	45	0	NZT0D3005L	
Total:							0	

FAILURE RATE: **MTTF (YRS): 69178** **FITS: 1.7**