



4/17/2012

RELIABILITY MONITOR REPORT
FOR

MFN 80V Bipolar CMOS DMOS (BCD88)

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:

MAX13021ASA+	MAX15004BAU	MAX5033AASA/	MAX5033BASA	MAX5033DASA/
MAX6767TALD	MAX6769TALD	MAX9919NASA		

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 25124 QUANTITY: 177 FAILS: 0 FITS: 4.5

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 4/1/2011 and 3/31/2012 .

Process Information:

Process Description: MFN 80V Bipolar CMOS DMOS (BCD88)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1011	MAX9919NASA+	135C	1000 HRS	32	0	JNXXCQ003A#
HIGH TEMP OP LIFE	1141	MAX6767TALD2+	135C	1024 HRS	48	0	J982DA015BA
HIGH TEMP OP LIFE	1152	MAX13021ASA+	135C	500 HRS	97	0	JP11DQ003AA
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1110	MAX15004BAUE/V+	150C	1000 HRS	50	0	J830CA013CA
STORAGE LIFE	1133	MAX5033DASA/V+	150C	1000 HRS	50	0	J6Y7GA165BH
STORAGE LIFE	1139	MAX5033BASA+	150C	1000 HRS	50	0	J6Y5GA197E
STORAGE LIFE	1152	MAX13021ASA+	150C	500 HRS	50	0	JP11DQ003AA
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1110	MAX15004BAUE/V+	-65C TO 150C	500 CYS	80	0	J830CA013CA
TEMP CYCLE, 5' RAMP, 10' DWELL	1121	MAX6769TALD2+	-65C TO 150C	500 CYS	80	0	J984DQ001AA
TEMP CYCLE, 5' RAMP, 10' DWELL	1121	MAX6769TALD2+	-65C TO 150C	500 CYS	80	0	J984DQ001BA
TEMP CYCLE, 5' RAMP, 10' DWELL	1133	MAX5033DASA/V+	-65C TO 150C	500 CYS	80	0	J6Y7GA165BH
TEMP CYCLE, 5' RAMP, 10' DWELL	1137	MAX5033AASA/V+	-65C TO 150C	500 CYS	80	0	J6Y4GA172DA

TEMP CYCLE, 5' RAMP, 10' DWELL	1139	MAX5033BASA+	-65C TO 150C	500	CYS	80	0	J6Y5GA197E
TEMP CYCLE, 5' RAMP, 10' DWELL	1141	MAX6767TALD2+	-65C TO 150C	1000	CYS	80	1	J982DA015BA
TEMP CYCLE, 5' RAMP, 10' DWELL	1145	MAX6767TALD2+	-65C TO 150C	500	CYS	90	0	J982DA017AA
TEMP CYCLE, 5' RAMP, 10' DWELL	1146	MAX6767TALD2+	-65C TO 150C	500	CYS	90	0	J982DA018AA
TEMP CYCLE, 5' RAMP, 10' DWELL	1152	MAX13021ASA+	-65C TO 150C	500	CYS	80	0	JP11DQ003AA
TEMP CYCLE, 5' RAMP, 10' DWELL	1152	MAX13021ASA+	-65C TO 150C	500	CYS	80	0	JP11DA005AA
Total:							1	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1121	MAX6769TALD2+	130C, 85% R.H.	96	HRS	80	0	J984DQ001AA
BIASED MOISTURE	1121	MAX6769TALD2+	130C, 85% R.H.	96	HRS	80	0	J984DQ001BA
BIASED MOISTURE	1133	MAX5033DASA/V+	130C, 85% R.H.	100	HRS	80	0	J6Y7GA165BH
BIASED MOISTURE	1137	MAX5033AASA/V+	130C, 85% R.H.	100	HRS	80	0	J6Y4GA172DA
BIASED MOISTURE	1139	MAX5033BASA+	130C, 85% R.H.	100	HRS	80	0	J6Y5GA197E
BIASED MOISTURE	1141	MAX6767TALD2+	130C, 85% R.H.	100	HRS	80	0	J982DA015BA
Total:							0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1121	MAX6769TALD2+	130C, 85% R.H.	96	HRS	79	0	J984DQ001AA
MOISTURE SOAK	1121	MAX6769TALD2+	130C, 85% R.H.	96	HRS	80	0	J984DQ001BA
MOISTURE SOAK	1133	MAX5033DASA/V+	130C, 85% R.H.	100	HRS	80	0	J6Y7GA165BH
MOISTURE SOAK	1137	MAX5033AASA/V+	130C, 85% R.H.	100	HRS	80	0	J6Y4GA172DA
MOISTURE SOAK	1141	MAX6767TALD2+	130C, 85% R.H.	100	HRS	80	0	J982DA015BA
MOISTURE SOAK	1145	MAX6767TALD2+	130C, 85% R.H.	100	HRS	80	0	J982DA017AA
MOISTURE SOAK	1146	MAX6767TALD2+	130C, 85% R.H.	100	HRS	80	0	J982DA018AA
MOISTURE SOAK	1152	MAX13021ASA+	130C, 85% R.H.	100	HRS	80	0	JP11DQ003AA
MOISTURE SOAK	1152	MAX13021ASA+	130C, 85% R.H.	100	HRS	80	0	JP11DA005AA

FAILURE RATE: **MTTF (YRS): 25124** **QUANTITY: 177** **Total:** **0**
FAILS: 0 **FITS: 4.5**