

4/17/2013



**RELIABILITY MONITOR REPORT
FOR**

MFN Poly Emitter Complementary Bipolar (CB20)

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:

MAX4166ELA+	MAX4166ELA+T	MAX4395ESD+	MAX913CSA+
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The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 56778 QUANTITY: 293 FAILS: 0 FITS: 2.0

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 4/1/2012 and 3/31/2013 .

Process Information:

Process Description: MFN Poly Emitter Complementary Bipolar (CB20)

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1144	MAX913CSA+	135°C	1000 HRS	78	0	NKE0C2062D
HIGH TEMP OP LIFE	1144	MAX913CSA+	135°C	1000 HRS	80	0	NKE0C2060D
HIGH TEMP OP LIFE	1233	MAX4166ELA+T	135°C	1000 HRS	45	0	NB6ACA142Q1
HIGH TEMP OP LIFE	1233	MAX4166ELA+	135°C	1000 HRS	45	0	NB6ACA142Q2
HIGH TEMP OP LIFE	1233	MAX4166ELA+T	135°C	1000 HRS	45	0	NB6ACA142Q3
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE	1233	MAX4166ELA+	150°C	1000 HRS	79	0	NB6ACA142Q1
STORAGE LIFE	1233	MAX4166ELA+	150°C	1000 HRS	80	0	NB6ACA142Q2
STORAGE LIFE	1233	MAX4166ELA+	150°C	1000 HRS	80	0	NB6ACA142Q3
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL	1229	MAX4395ESD+	-65C TO 150C	1000 CYS	80	0	N9Q0AA537B
TEMP CYCLE, 5' RAMP, 10' DWELL	1233	MAX4166ELA+	-65C TO 150C	1000 CYS	80	0	NB6ACA142Q1
TEMP CYCLE, 5' RAMP, 10' DWELL	1233	MAX4166ELA+	-65C TO 150C	1000 CYS	80	0	NB6ACA142Q2
TEMP CYCLE, 5' RAMP, 10' DWELL	1233	MAX4166ELA+	-65C TO 150C	1000 CYS	80	0	NB6ACA142Q3
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
BIASED MOISTURE	1233	MAX4166ELA+	130C, 85% R.H.	100	HRS	80	0	NB6ACA142Q1
BIASED MOISTURE	1233	MAX4166ELA+	130C, 85% R.H.	100	HRS	80	0	NB6ACA142Q2
BIASED MOISTURE	1233	MAX4166ELA+	130C, 85% R.H.	100	HRS	80	0	NB6ACA142Q3
Total:						0		

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.	
MOISTURE SOAK	1229	MAX4395ESD+	130C, 85% R.H.	100	HRS	80	0	N9Q0AA537B
MOISTURE SOAK	1233	MAX4166ELA+	130C, 85% R.H.	100	HRS	80	0	NB6ACA142Q1
MOISTURE SOAK	1233	MAX4166ELA+	130C, 85% R.H.	100	HRS	80	0	NB6ACA142Q2
MOISTURE SOAK	1233	MAX4166ELA+	130C, 85% R.H.	100	HRS	80	0	NB6ACA142Q3
Total:						0		

FAILURE RATE: **MTTF (YRS): 56778** **QUANTITY: 293** **FAILS: 0** **FITS: 2.0**