



5/18/2009

RELIABILITY MONITOR REPORT
FOR

SOT Package

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 Package Reliability Monitor. The specific assemblies included in this package monitor are:

ASSY SITE	PINS	PACKAGE		
ASAT-DongGuan (C	6	TSOT23 (Pb-Free)	ATP (Amkor, PI)	6 TSOT23 (Pb-Free)
Carsem-M	6	SOT23	Carsem-M	5 SOT23 (Pb-Free)
Cirtek	3	SOT23 (Pb-Free)	ISPL (ATEC, PI)	5 SOT23
ISPL (ATEC, PI)	6	SOT23	ISPL (ATEC, PI)	5 SOT23 (Pb-Free)
ISPL (ATEC, PI)	6	SOT23 (Pb-Free)	ISPL (ATEC, PI)	6 TSOT23 (Pb-Free)
UTL (NSEB) UTAC	5	SOT23 (Pb-Free)		

The calculated failure rate for this assembly is:

FAILURE RATE: MTTF (YRS): 147753 FITS: 0.8

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

Cf: 60% Ea: 0.7 Tu: 25 °C

The reliability data follows. At the start of this data is a description of the assembly vehicle used to generate this reliability data. The next section is the detailed reliability data for each stress. The reliability data section includes the latest data available. This report covers data between and

Assembly Information:

Package Type: SOT23
Date Code Range: 074 to 0735

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0712	LMX331AUK+	135C	1000 HRS	80	0	
HIGH TEMP OP LIFE	0724	MAX2680EUT+	135C	1000 HRS	79	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	074	MAX2606EUT+	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0724	MAX2680EUT+(AUT +)	-65C TO 150C	1000 CYS	79	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0735	MAX2607EUT+	-65C TO 150C	500 CYS	77	0	
Total:						0	

Assembly Information:

Package Type: SOT23 (Pb-Free)
Date Code Range: 0723 to 0851

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0723	MAX2680EUT+T	135C	1000 HRS	77	0	

HIGH TEMP OP LIFE	0813	MAX8863TEUK+T	135C	1000 HRS	48	0
HIGH TEMP OP LIFE	0813	MAX8863TEUK+T	135C	1000 HRS	48	0
HIGH TEMP OP LIFE	0813	MAX8863TEUK+T	135C	1000 HRS	48	0
HIGH TEMP OP LIFE	0851	MAX4434EUK+	135C	138 HRS	80	0
Total:						0

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0739	MAX2680EUT+T	150C	1000 HRS	45	0	
STORAGE LIFE	0810	DS1814	150C	1000 HRS	75	0	
STORAGE LIFE	0810	DS1814	150C	1000 HRS	72	0	
STORAGE LIFE	0813	MAX8863TEUK+T	150C	1000 HRS	80	0	
STORAGE LIFE	0813	MAX8863TEUK+T	150C	1000 HRS	80	0	
STORAGE LIFE	0813	MAX8863TEUK+T	150C	1000 HRS	80	0	
STORAGE LIFE	0827	DS2502	150C	1000 HRS	77	0	
STORAGE LIFE	0827	DS2502	150C	1000 HRS	77	0	
STORAGE LIFE	0827	DS2502	150C	1000 HRS	77	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	0739	MAX2680EUT+T	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	DS1814	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0810	DS1814	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0813	MAX8863TEUK+T	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0813	MAX8863TEUK+T	-65C TO 150C	1000 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0813	MAX8863TEUK+T	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0813	MAX8863TEUK+T	-65C TO 150C	500 CYS	80	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0827	DS2502	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0827	DS2502	-55C TO 125C	1000 CYS	77	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0827	DS2502	-55C TO 125C	1000 CYS	77	0	
Total:						0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST	0810	DS1814	130C, 85%R.H.,5.0V	100 HRS	79	0	
HAST	0810	DS1814	130C, 85%R.H.,5.0V	100 HRS	79	0	

HAST	0827	DS2502	130C, 85%R.H.,5.5V	96	HRS	81	0
HAST	0827	DS2502	130C, 85%R.H.,5.5V	96	HRS	79	0
HAST	0827	DS2502	130C, 85%R.H.,5.5V	96	HRS	80	0
Total:							0

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HAST, NO BIAS	0810	DS1814	130C, 85% R.H.	100 HRS	77	0	
HAST, NO BIAS	0810	DS1814	130C, 85% R.H.	100 HRS	77	0	
HAST, NO BIAS	0827	DS2502	130C, 85% R.H.	100 HRS	72	0	
HAST, NO BIAS	0827	DS2502	130C, 85% R.H.	100 HRS	77	0	
HAST, NO BIAS	0827	DS2502	130C, 85% R.H.	100 HRS	77	0	
Total:							0

Assembly Information:

Package Type: TSOT23 (Pb-Free)

Date Code Range: 0802 to 0822

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0802	MAX1589ETZ250+T	135C	1000 HRS	79	0	
HIGH TEMP OP LIFE	0806	MAX1589EZT250+T	135C	1000 HRS	79	0	
HIGH TEMP OP LIFE	0810	MAX16054AZT+	135C	192 HRS	48	0	
HIGH TEMP OP LIFE	0816	MAX5383EZT+	135C	1000 HRS	50	0	
HIGH TEMP OP LIFE	0816	MAX5383EZT+	135C	1000 HRS	50	0	
HIGH TEMP OP LIFE	0816	MAX5383EZT+	135C	1000 HRS	50	0	
HIGH TEMP OP LIFE	0818	MAX5383EZT+T	135C	1000 HRS	50	0	
HIGH TEMP OP LIFE	0818	MAX5383EZT+T	135C	1000 HRS	49	0	
HIGH TEMP OP LIFE	0818	MAX5383EZT+T	135C	1000 HRS	50	0	
HIGH TEMP OP LIFE	0822	MAX1963EZT090+T	135C	192 HRS	48	0	
Total:							0

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX5383EZT+T	-65C TO 150C	1000 CYS	12	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX5383EZT+T	-65C TO 150C	1000 CYS	79	0	
TEMP CYCLE, 5' RAMP, 10' DWELL	0818	MAX5383EZT+T	-65C TO 150C	1000 CYS	80	0	
Total:							0

FAILURE RATE: MTTF (YRS): 147753 FITS: 0.8