

# RELIABILITY REPORT





NOW PART OF



## Reliability Data Report Product Family R423

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LT1490A / LT1491A / LT1678 / LT1679 /  
LT1716 / LT1880 / LT1990 / LT1991 /  
LT1996 / LT6010 / LT6011 / LT6012 /  
LT6013 / LT6014 / LT6106 / LT6107

# Reliability Data Report

## Report Number: R423

Report generated on: Mon Mar 05 10:51:45 PST 2018

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) <sup>1</sup>	No. of FAILURES <sub>2,3</sub>
QFN/DFN	154	0318	0421	154	0
PLASTIC DIP	1142	9827	0629	1280	2
SOT	625	0227	1635	494	0
SOIC/MSOP	8259	9950	1713	3237	0
Totals	10,180	-	-	5,165	2

HIGHLY ACCELERATED STRESS TEST AT +130 DEG C / 85% RH					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+85°C) <sup>4</sup>	No. of FAILURES
SOT	480	1626	1630	1689	0
SOIC/MSOP	142	0727	1634	272	0
Totals	622	-	-	1,961	0

PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	3533	0231	1605	734	0
SSOP/TSSOP	100	0331	0331	33	0
SOIC/MSOP	11941	9950	1709	964	0
PLASTIC DIP	300	0007	0310	22	0
SOT	15882	0115	1710	640	0
Totals	31,756	-	-	2,393	0

TEMP CYCLE FROM -65 TO 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	3837	0231	1605	1812	0
SSOP/TSSOP	50	0331	0331	50	0
SOIC/MSOP	11794	0013	1709	3008	0
PLASTIC DIP	150	0310	0732	35	0
SOT	10820	0115	1710	1575	0
Totals	26,651	-	-	6,480	0

(1) Assumes Activation Energy = 1.0 Electron Volts  
(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =1.2 FITS  
(3) Mean Time Between Failure in Years = 95465.41  
(4) Assumes 20X Acceleration from 85 °C to +130 °C  
Note 1: 1 FIT = 1 Failure in One Billion Hours.  
Note 2: HAST, Temp Cycle & Thermal Shock are subjected to J-STD-020 MSL Preconditioning

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<b>THERMAL SHOCK FROM -65 TO 150 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE CYCLES</b>	<b>No. of FAILURES</b>
QFN/DFN	3246	0231	1605	1812	0
SSOP/TSSOP	50	0331	0331	50	0
SOIC/MSOP	10136	0120	1709	2286	0
PLASTIC DIP	50	0732	0732	5	0
SOT	11137	0115	1710	1312	0
Totals	24,619	-	-	5,465	0
<b>HIGH TEMPERATURE BAKE AT 175 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HRS</b>	<b>No. of FAILURES</b>
SOIC/MSOP	321	1019	1439	285	0
SOT	250	1332	1515	250	0
Totals	571	-	-	535	0
<b>HIGH TEMPERATURE BAKE AT 150 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HRS</b>	<b>No. of FAILURES</b>
QFN/DFN	100	0913	1605	100	0
SOIC/MSOP	175	1019	1335	175	0
SOT	238	0819	0912	238	0
Totals	513	-	-	513	0