

# RELIABILITY REPORT





NOW PART OF



## Reliability Data Report Product Family R303

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LT1300 / LT1301 / LT1302 / LT1303 / LT1304 /  
LT1305 / LT1306 / LT1307 / LT1308 / LT1309 /  
LT1310 / LT1610 / LT1614 / LT1615 / LT1616 /  
LT1617 / LT1618 / LT1683 / LT1738 / LT1930 /  
LT1931 / LT1932 / LT1934 / LT1935 / LT1936 /  
LT1937 / LT1976 / LT1977 / LT3462 / LT3463 /  
LT3466 / LT3468 / LT3470 / LT3473 / LT3474 /  
LT3476 / LT3477 / LT3501 / LT3510 / LT3782

# Reliability Data Report

## Report Number: R303

Report generated on: Mon Mar 05 10:46:52 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>
SIDEBRAZE	77	9613	9613	38	0
QFN/DFN	1535	0421	1707	1900	0
SSOP/TSSOP	2621	0040	1644	2437	0
SOIC/MSOP	1723	9519	1519	1575	0
PLASTIC DIP	233	9312	9513	232	0
SOT	1786	9914	1620	1139	0
Totals	7,975	-	-	7,321	0

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
SSOP/TSSOP	30	1644	1644	57	0
SOIC/MSOP	134	9426	0012	81	0
QFN/DFN	555	1208	1634	1833	0
SOT	71	0340	0340	238	0
Totals	790	-	-	2,209	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	22664	0112	1715	1666	0
SSOP/TSSOP	29369	9933	1716	1452	0
PLASTIC DIP	1342	9516	9845	346	0
SOIC/MSOP	17348	9501	1712	902	0
SOT	53775	9929	1716	4567	0
Totals	124,498	-	-	8,933	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
DD PAK	50	9530	9530	5	0
QFN/DFN	17687	0112	1713	4913	0
SSOP/TSSOP	29676	9445	1716	5197	0
PLASTIC DIP	250	9428	0049	25	0
SOIC/MSOP	31743	9417	1712	4051	0
SOT	52649	9930	1716	13591	0
Totals	132,055	-	-	27,782	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.25 FITS

(3) Mean Time Between Failure in Years = 455886.66

(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	17060	0112	1716	3049	0
SSOP/TSSOP	29642	9933	1716	4843	0
PLASTIC DIP	190	9417	9845	96	0
SOIC/MSOP	10885	9417	1712	2002	0
SOT	49072	9930	1716	12254	0
Totals	106,849	-	-	22,244	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	995	0826	1632	995	0
SOT	200	1539	1539	100	0
Totals	1,195	-	-	1,095	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>
QFN/DFN	427	1127	1427	427	0
SSOP/TSSOP	250	1004	1321	250	0
SOIC/MSOP	150	1017	1422	125	0
SOT	2293	0835	1525	1954	0
Totals	3,120	-	-	2,756	0