



Reliability Data Report Product Family R531

LT1965 / LT3007 / LT3008 / LT3009 /
LT3015 / LT3022 / LT3029 / LT3030 /
LT3042 / LT3045 / LT3048 / LT3050 /
LT3055 / LT3060 / LT3061 / LT3062 /
LT3063 / LT3065 / LT3066 / LT3080 /
LT3081 / LT3082 / LT3083 / LT3085 /
LT3086 / LT3088 / LT3089 / LT3090 /
LT3091 / LT3092 / LT3095

Reliability Data Report

Report Number: R531

Report generated on: Tue Nov 29 10:01:45 PST 2016

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES ^{2, 3}
QFN/DFN	1073	0713	1516	1875	0
SSOP/TSSOP	230	0941	1428	579	0
TO-3	231	1034	1034	622	0
SOIC/MSOP	728	0813	1518	2836	0
SOT	154	0908	1421	862	0
Totals	2,416	-	-	6,774	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) ⁴	No. of FAILURES
SOT	662	1332	1503	1278	0
Totals	662	-	-	1,278	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
DD PAK	3664	0811	1511	576	0
QFN/DFN	6512	0552	1521	902	0
SSOP/TSSOP	983	0550	1516	143	0
SOIC/MSOP	3374	0739	1518	311	0
TO-220	2052	0813	1445	423	0
SOT	8336	0730	1517	466	0
Totals	24,921	-	-	2,821	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	3627	1045	1511	1420	0
QFN/DFN	5958	0552	1521	2260	0
SSOP/TSSOP	853	0550	1516	360	0
SOIC/MSOP	4044	0739	1518	1331	0
TO-220	1625	1045	1445	918	0
SOT	4833	0740	1517	949	0
Totals	20,940	-	-	7,238	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.27 FITS

(3) Mean Time Between Failure in Years = 421824.41

(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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THERMAL SHOCK FROM -65 TO 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
DD PAK	2524	0811	1511	823	0
QFN/DFN	5507	0552	1521	2133	0
SSOP/TSSOP	803	0550	1516	357	0
SOIC/MSOP	3809	0739	1518	1237	0
TO-220	1016	0813	1445	500	0
SOT	4557	0740	1517	779	0
Totals	18,216	-	-	5,829	0
HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	1047	0739	1521	952	0
SOIC/MSOP	535	0739	1033	535	0
SOT	154	0811	0811	77	0
Totals	1,736	-	-	1,564	0
HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
DD PAK	592	1223	1430	592	0
QFN/DFN	1062	0552	1444	1706	0
SSOP/TSSOP	229	1227	1243	230	0
SOIC/MSOP	535	0739	1345	510	0
TO-220	453	1247	1430	453	0
SOT	494	0836	1513	462	0
Totals	3,365	-	-	3,953	0