

RELIABILITY REPORT





NOW PART OF



Reliability Data Report Product Family R386

LT1500 / LT1501 / LT1506 / LT1507 /
LT1533 / LT1534 / LT1611 / LT1613 /
LT1761 / LT1762 / LT1763 / LT1764 /
LT1765 / LT1959 / LT1962 / LT1963 /
LT1964 / LT3012 / LT3013 / LT3014 /
LT3021 / LT3027 / LT3028 / LT3032 /
LT3150

Reliability Data Report

Report Number: R386

Report generated on: Mon Mar 05 10:50:06 PST 2018

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C)¹	No. of FAILURES ^{2,3}
SIDEBRAZE	30	9601	9601	30	0
DD PAK	50	0037	0037	8	0
QFN/DFN	231	0210	0502	163	0
SSOP/TSSOP	231	0502	0650	585	0
SOT	915	9827	1643	813	0
SOIC/MSOP	2613	9601	1712	1255	0
TO-220	244	9940	1317	97	0
Totals	4,314	-	-	2,951	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	437	9943	0620	2543	0
SOIC/MSOP	140	1450	1647	268	0
Totals	577	-	-	2,811	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	13713	9934	1715	765	0
QFN/DFN	14113	0000	1714	818	0
SSOP/TSSOP	12402	9740	1711	669	0
PLASTIC DIP	50	9607	9607	1	0
SOT	46336	9829	1716	3711	0
SOIC/MSOP	16930	9610	1712	1025	0
TO-220	3463	0121	1537	235	0
Totals	107,007	-	-	7,224	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	27651	9838	1715	3696	0
QFN/DFN	15832	0509	1714	2823	0
SSOP/TSSOP	12306	9740	1711	2767	0
PLASTIC DIP	50	9607	9607	5	0
SOT	36857	9829	1716	11264	0
SOIC/MSOP	25801	9605	1709	4113	0
TO-220	5337	0121	1537	947	0
Totals	123,834	-	-	25,615	0

(1) Assumes Activation Energy = 1.0 Electron Volts
(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.62 FITS
(3) Mean Time Between Failure in Years = 183762
(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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TEMP CYCLE FROM -55 TO 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
SOT	50	0914	0914	5	0
SOIC/MSOP	49	0913	0913	4	0
Totals	99	-	-	9	0

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	12414	9934	1715	2041	0
QFN/DFN	16304	0509	1714	2875	0
SSOP/TSSOP	12524	0210	1711	2077	0
PLASTIC DIP	50	9607	9607	5	0
SOT	35745	9833	1716	8532	0
SOIC/MSOP	16641	9605	1709	2355	0
TO-220	2930	0121	1537	549	0
Totals	96,608	-	-	18,434	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	2396	0650	1640	2858	0
SOT	1195	0829	1608	1070	0
SOIC/MSOP	98	1440	1450	98	0
Totals	3,689	-	-	4,026	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	1031	0903	1625	961	0
QFN/DFN	1077	0650	0709	1038	0
SSOP/TSSOP	350	0824	0918	175	0
SOT	3014	0822	1643	2865	0
SOIC/MSOP	852	0841	1625	528	0
TO-220	350	1215	1513	343	0
Totals	6,674	-	-	5,910	0