

RELIABILITY REPORT





NOW PART OF



Reliability Data Report Product Family R494

LTC997 / LTC6903 / LTC6904 /
LTC6905 / LTC6906 / LTC6907 /
LTC6908 / LTC6909 / LTC6930 /
LTC6990 / LTC6991 / LTC6992 /
LTC6993 / LTC6994 / LTC6995

Reliability Data Report

Report Number: R494

Report generated on: Mon Mar 05 10:52:36 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}
SOIC/MSOP	616	0415	0844	617	0
QFN/DFN	77	0630	0630	77	0
SOT	946	0502	1711	532	0
Totals	1,639	-	-	1,226	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	1023	1146	1635	2835	0
Totals	1,023	-	-	2,835	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
SOIC/MSOP	990	0717	1545	23	0
QFN/DFN	628	0602	1607	51	0
SOT	15362	0438	1711	686	0
Totals	16,980	-	-	760	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
SOIC/MSOP	989	0717	1537	98	0
QFN/DFN	592	0606	1607	101	0
SOT	14848	0438	1711	2787	0
Totals	16,429	-	-	2,986	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
SOIC/MSOP	1089	0717	1545	108	0
QFN/DFN	546	0602	1607	90	0
SOT	14236	0438	1711	1872	0
Totals	15,871	-	-	2,070	0

(1) Assumes Activation Energy = 0.7 Electron Volts
(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =9.66 FITS
(3) Mean Time Between Failure in Years = 11811.43
(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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HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SOIC/MSOP	43	1537	1537	43	0
SOT	599	1301	1613	349	0
Totals	642	-	-	392	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	46	1607	1607	46	0
SOT	279	0822	1627	279	0
Totals	325	-	-	325	0