

RELIABILITY REPORT





NOW PART OF



Reliability Data Report

Product Family R544

LTC2655 / LTC2934 / LTC2935 / LTC2941 /
LTC2942 / LTC2970 / LTC2974 / LTC2975 /
LTC2977 / LTC2978 / LTC2990 / LTC2991 /
LTC2995 / LTC2996 / LTC2997

Reliability Data Report

Report Number: R544

Report generated on: Wed Jan 10 14:22:47 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}
QFN/DFN	12669	0619	1549	1141	0
SOIC/MSOP	3130	0929	1533	930	0
SOT	157	0739	0913	118	0
Totals	15,956	-	-	2,189	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
SOIC/MSOP	229	1321	1350	883	0
QFN/DFN	516	1106	1517	1190	0
SOT	231	1438	1539	887	0
Totals	976	-	-	2,960	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
SSOP/TSSOP	308	0714	0715	103	0
SOIC/MSOP	324	0843	1533	54	0
QFN/DFN	2487	0811	1711	125	0
SOT	471	0806	1539	44	0
Totals	3,590	-	-	326	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	2635	0839	1711	600	0
SSOP/TSSOP	308	0714	0715	308	0
SOIC/MSOP	226	0843	1533	53	0
SOT	230	1528	1539	230	0
Totals	3,399	-	-	1,191	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
QFN/DFN	2563	0839	1711	600	0
SSOP/TSSOP	303	0714	0715	303	0
SOIC/MSOP	177	0843	1025	48	0
SOT	231	1528	1539	231	0
Totals	3,274	-	-	1,182	0

- (1) Assumes Activation Energy = 0.7 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =5.41 FITS
 (3) Mean Time Between Failure in Years = 21089.09
 (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
SSOP/TSSOP	200	0714	0715	200	0
SOIC/MSOP	121	1528	1533	60	0
QFN/DFN	154	0937	1011	154	0
SOT	77	1539	1539	77	0
Totals	552	-	-	491	0
HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SSOP/TSSOP	100	0714	0715	100	0
SOIC/MSOP	50	0843	0843	50	0
QFN/DFN	976	0937	1701	912	0
Totals	1,126	-	-	1,062	0