



Reliability Data Report Product Family R539

LTC3119 \ LTC3126 \ LTC3130 \
LTC3246 \ LTC3601 \ LTC3604 \
LTC3605 \ LTC3607 \ LTC3621 \
LTC3622 \ LTC3624 \ LTC3626 \
LTC3633 \ LTC3643 \ LTC7124 \
LTC7149 \ LTC3290 \ LTC7804 \
LTC7818 \ LTC8551

Reliability Data Report

Report Number: R539

Report generated on: Tue Dec 17 17:13:40 PST 2019

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	924	1210	1451	2006	0
QFN/DFN	2462	0822	1648	2644	0
Totals	3,386	-	-	4,650	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
QFN/DFN	2274	1626	1711	6209	0
Totals	2,274	-	-	6,209	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)⁵	No. of FAILURES
QFN/DFN	2274	1626	1711	6209	0
Totals	2,274	-	-	6,209	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)⁶	No. of FAILURES
QFN/DFN	2274	1626	1711	6209	0
Totals	2,274	-	-	6,209	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	14008	1021	1715	995	0
SSOP/TSSOP	4690	1024	1702	114	0
SOIC/MSOP	906	1233	1540	117	0
Totals	19,604	-	-	1,226	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =2.55 FITS

(3) Mean Time Between Failure in Years = 44798.65

(4) Assumes 20X Acceleration from 85 °C to +130 °C

(5) Assumes 20X Acceleration from 85 °C to +130 °C

(6) 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 -65 TO 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	41932	1021	1715	6571	0
SSOP/TSSOP	4786	1024	1702	478	0
SOIC/MSOP	1184	1233	1540	392	0
Totals	47,902	-	-	7,441	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	40324	1021	1715	5191	0
SSOP/TSSOP	4672	1024	1702	467	0
SOIC/MSOP	1178	1233	1540	391	0
Totals	46,174	-	-	6,049	0

HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SOIC/MSOP	200	1241	1304	200	0
QFN/DFN	34954	1217	1626	33457	0
Totals	35,154	-	-	33,657	0

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	468	0936	1214	468	0
Totals	468	-	-	468	0

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