



Reliability Data Report

Product Family R547

LTC4226 / LTC4231 / LTC4266 /
LTC4270 / LTC4274 / LTC4290 /
LTC4359 / LTC4364 / LTC4365 /
LTC4366 / LTC4380 / LTC4417 /
LTC7860

Reliability Data Report

Report Number: R547

Report generated on: Mon May 18 16:47:33 PDT 2015

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) ¹	No. of FAILURES _{2, 3}
SSOP/TSSOP	542	0848	1418	436	0
SOIC/MSOP	154	1210	1438	77	0
QFN/DFN	1227	1047	1421	179	0
SOT	234	0921	1133	169	0
Totals	2,157	-	-	861	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
SSOP/TSSOP	225	1041	1426	573	0
SOIC/MSOP	154	1343	1443	295	0
QFN/DFN	549	1304	1433	1281	0
Totals	928	-	-	2,149	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	1061	1013	1412	207	0
SSOP/TSSOP	227	0829	1336	65	0
SOIC/MSOP	100	1351	1409	2	0
SOT	500	1118	1408	12	0
Totals	1,888	-	-	286	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	1301	1013	1412	929	0
SSOP/TSSOP	223	0806	0838	187	0
SOIC/MSOP	150	1152	1409	105	0
SOT	497	1118	1408	49	0
Totals	2,171	-	-	1,270	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	1086	1013	1412	729	0
SSOP/TSSOP	153	0829	0838	153	0
SOIC/MSOP	99	1152	1409	54	0
SOT	495	1118	1408	49	0
Totals	1,833	-	-	985	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =13.76 FITS

(3) Mean Time Between Failure in Years = 8294.98

(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 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
SSOP/TSSOP	100	0829	0838	100	0
Totals	100	-	-	100	0
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	95	0829	0838	95	0
QFN/DFN	646	1250	1412	532	0
SOT	50	1240	1240	25	0
Totals	791	-	-	652	0