

RELIABILITY REPORT





Reliability Data Report Product Family R532

LTC6246 \ LTC6247 \ LTC6248 \
LTC6252 \ LTC6253 \ LTC6254 \
LTC6255 \ LTC6256 \ LTC6257 \
LTC6362 \ LTC6363 \ LTC6400 \
LTC6401 \ LTC6403 \ LTC6404 \
LTC6405 \ LTC6406 \ LTC6410 \
LTC6412 \ LTC6416 \ LTC6417 \
LTC6420 \ LTC6421 \ LTC6601 \
LTC6605

Reliability Data Report

Report Number: R532

Report generated on: Tue Jun 28 15:53:53 PDT 2016

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	506	0925	1528	569	0
QFN/DFN	1311	0713	1245	1126	0
Totals	1,817	-	-	1,695	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	101	1217	1510	240	0
SOT	299	1433	1437	526	0
Totals	400	-	-	766	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	11268	0706	1522	500	0
QFN/DFN	1758	0639	1516	156	0
SOT	899	1001	1519	21	0
Totals	13,925	-	-	677	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	10688	0706	1522	1617	0
QFN/DFN	1930	0639	1516	682	0
SOT	883	1001	1519	104	0
Totals	13,501	-	-	2,403	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	1724	0639	1516	525	0
SOIC/MSOP	10261	0706	1522	1578	0
SOT	936	1001	1519	110	0
Totals	12,921	-	-	2,213	0

- (1) Assumes Activation Energy = 0.7 Electron Volts
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =6.99 FITS
 (3) Mean Time Between Failure in Years = 16329.83
 (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
SOIC/MSOP	148	0706	1217	145	0
QFN/DFN	176	0639	1516	151	0
Totals	324	-	-	296	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	477	0706	1510	477	0
QFN/DFN	77	0639	0639	77	0
Totals	554	-	-	554	0