



Reliability Data Report

Product Family R402

LTC1502/03 LTC1682 LTC1733/34/51
LTC1754/59/60 LTC1772/79
LTC1872/74 LTC1928/83/86
LTC3550 LTC3700 LTC4060/61/62/63/68
LTC4075/76/77

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Report generated on: Wed Sep 19 11:36:32 PDT 2012

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (125°C) ¹	No. of FAILURES ^{2, 3}
SIDEBRAZE	147	9901	0337	147	0
QFN/DFN	385	0502	0522	385	0
SOIC/SOT/MSOP	3855	9901	1140	3773	0
Totals	4,387	-	-	4,305	0
HIGHLY ACCELERATED STRESS TEST AT +131 DEG C / 85% RH					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS (+85°C) ⁴	No. of FAILURES
SOIC/SOT/MSOP	426	0201	1046	808	0
Totals	426	-	-	808	0
PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	No. of FAILURES
QFN/DFN	4248	0427	1036	373	0
SSOP/TSSOP	1804	9917	0952	317	0
SOIC/SOT/MSOP	33406	9843	1114	3080	0
Totals	39,458	-	-	3,770	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	5763	0443	1036	1175	0
SSOP/TSSOP	2677	9917	1033	1369	0
SOIC/SOT/MSOP	47363	9484	1114	8842	0
Totals	55,803	-	-	11,386	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	4005	0443	1036	953	0
SSOP/TSSOP	1771	9917	1033	992	0
SOIC/SOT/MSOP	24085	9484	1114	6131	0
Totals	29,861	-	-	8,076	0
<p>(1) Assumes Activation Energy = 0.7 Electron Volts</p> <p>(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.43 FITS</p> <p>(3) Mean Time Between Failure in Years = 268077.09</p> <p>(4) Assumes 20X Acceleration from 85 °C to +131 °C</p> <p>Note 1: 1 FIT = 1 Failure in One Billion Hours.</p> <p>Note 2: HAST, Temp Cycle & Thermal Shock are subjected to J-STD-020 MSL Preconditioning</p>					

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HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	No. of FAILURES
QFN/DFN	273	0639	0825	273	0
SSOP/TSSOP	281	0835	0850	281	0
Totals	554	-	-	554	0
HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	No. of FAILURES
QFN/DFN	231	0639	0646	231	0
SSOP/TSSOP	193	0835	0850	193	0
Totals	424	-	-	424	0