

RELIABILITY REPORT





NOW PART OF



Reliability Data Report

Product Family R526

LTC3103 / LTC3104 / LTC3111 / LTC3112 / LTC3114 / LTC3115 /
LTC3118 / LTC3121 / LTC3122 / LTC3124 / LTC3129 / LTC3245 /
LTC3255 / LTC3256 / LTC3260 / LTC3261 / LTC3265 / LTC3355 /
LTC3388 / LTC3582 / LTC3600 / LTC3602 / LTC3603 / LTC3618 /
LTC3623 / LTC3630 / LTC3631 / LTC3632 / LTC3637 / LTC3638 /
LTC3639 / LTC3640 / LTC3641 / LTC3642 / LTC3646 / LTC3647 /
LTC3649 / LTC3676 / LTC3769 / LTC3774 / LTC3775 / LTC3779 /
LTC3784 / LTC3786 / LTC3787 / LTC3788 / LTC3789 / LTC3790 /
LTC3807 / LTC3829 / LTC3833 / LTC3838 / LTC3839 / LTC3850 /
LTC3851 / LTC3852 / LTC3853 / LTC3854 / LTC3855 / LTC3856 /
LTC3857 / LTC3858 / LTC3859 / LTC3862 / LTC3863 / LTC3864 /
LTC3865 / LTC3866 / LTC3867 / LTC3868 / LTC3869 / LTC3870 /
LTC3871 / LTC3874 / LTC3875 / LTC3876 / LTC3877 / LTC3878 /
LTC3879 / LTC3880 / LTC3882 / LTC3883 / LTC3884 / LTC3886 /
LTC3887 / LTC3890 / LTC3891 / LTC3892 / LTC3895 / LTC3896 /
LTC3897 / LTC3899

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Report Number: R526

Report generated on: Mon Mar 05 10:57:34 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}
SSOP/TSSOP	9659	0645	1645	4505	0
QFP	77	1314	1314	257	0
SOIC/MSOP	1771	0816	1626	4256	0
QFN/DFN	16265	0816	1717	9216	0
Totals	27,772	-	-	18,234	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	13233	0911	1716	27826	0
QFP	154	1315	1432	591	0
SOIC/MSOP	1911	1040	1644	4947	0
QFN/DFN	6967	1043	1709	15260	0
Totals	22,265	-	-	48,624	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	62757	0652	1716	2043	0
QFP	1109	1311	1649	206	0
SOIC/MSOP	17280	0908	1709	1726	0
QFN/DFN	53508	0649	1716	2407	0
Totals	134,654	-	-	6,382	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
SSOP/TSSOP	62013	0652	1716	8918	0
QFP	479	1311	1649	624	0
SOIC/MSOP	17620	0908	1709	7696	0
QFN/DFN	58623	0639	1716	11807	0
Totals	138,735	-	-	29,045	0

TEMP CYCLE FROM -40 TO 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	150	1406	1406	151	0
Totals	150	-	-	151	0

(1) Assumes Activation Energy = 0.7 Electron Volts
(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =0.65 FITS
(3) Mean Time Between Failure in Years = 175668.55
(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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THERMAL SHOCK FROM -65 TO 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
SSOP/TSSOP	63046	0652	1716	8529	0
QFP	252	1311	1649	162	0
SOIC/MSOP	15702	0908	1709	5283	0
QFN/DFN	53374	0652	1716	10123	0
Totals	132,374	-	-	24,097	0
HIGH TEMPERATURE BAKE AT 125 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	198	1413	1521	198	0
QFP	50	1432	1432	50	0
Totals	248	-	-	248	0
HIGH TEMPERATURE BAKE AT 150 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	6312	0726	1632	6062	0
SSOP/TSSOP	690	0812	1018	653	0
QFP	194	1311	1613	157	0
SOIC/MSOP	834	0905	1336	1052	0
Totals	8,030	-	-	7,924	0
HIGH TEMPERATURE BAKE AT 175 DEG C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	5107	0726	1549	2874	0
SSOP/TSSOP	1904	0812	1714	1614	0
QFP	154	1311	1315	154	0
SOIC/MSOP	2504	0908	1619	2459	0
Totals	9,669	-	-	7,101	0