



Reliability Data Report

Product Family R572

LTC4275 / LTC4276 / LTC4320 / LTC4321

Reliability Data Report

Report Number: R572

Report generated on: Thu Aug 20 11:24:06 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}
QFN/DFN	254	1213	1304	2204	0
SOIC/MSOP	40	1304	1304	80	0
Totals	294	-	-	2,284	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	193	1408	1410	370	0
Totals	193	-	-	370	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	248	1320	1401	5	0
QFN/DFN	154	1410	1410	25	0
Totals	402	-	-	30	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	100	1320	1401	10	0
QFN/DFN	154	1410	1410	77	0
Totals	254	-	-	87	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
SOIC/MSOP	150	1320	1401	15	0
Totals	150	-	-	15	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	100	1410	1410	50	0
Totals	100	-	-	50	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =5.19 FITS

(3) Mean Time Between Failure in Years = 22004.33

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

Note: 1 FIT = 1 Failure in One Billion Hours.

Note 2: HAST, Temp Cycle & Thermal Shock are subjected to J-STD-020 MSL1 Preconditioning