

# RELIABILITY REPORT





## Reliability Data Report Product Family R549

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LTC2312 \ LTC2313 \ LTC2314 \  
LTC2315 \ LTC2321 \ LTC2323 \  
LTC2326 \ LTC2327 \ LTC2328 \  
LTC2336 \ LTC2337 \ LTC2338 \  
LTC2345 \ LTC2348 \ LTC2364 \  
LTC2367 \ LTC2368 \ LTC2370 \  
LTC2376 \ LTC2377 \ LTC2378 \  
LTC2379 \ LTC2380 \ LTC2381 \  
LTC2382 \ LTC2383 \ LTC2386 \  
LTC2387 \ LTC2389 \ LTC2391 \  
LTC2392 \ LTC2393

# Reliability Data Report

## Report Number: R549

Report generated on: Mon Sep 22 10:14:09 PDT 2014

<b>OPERATING LIFE TEST</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) <sup>1</sup>	No. of FAILURES <sub>2,3</sub>
SOIC/MSOP	443	1023	1323	340	0
QFN/DFN	154	0936	1315	154	0
SOT	308	1203	1319	141	0
Totals	905	-	-	635	0
<b>PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS	No. of FAILURES
QFN/DFN	201	0904	1310	34	0
SOIC/MSOP	77	1001	1001	12	0
Totals	278	-	-	46	0
<b>TEMP CYCLE FROM -65 TO 150 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	127	1001	1310	63	0
SOIC/MSOP	77	1001	1001	38	0
Totals	204	-	-	101	0
<b>THERMAL SHOCK FROM -65 TO 150 DEG C</b>					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	No. of FAILURES
QFN/DFN	127	1001	1310	63	0
SOIC/MSOP	76	1001	1001	38	0
Totals	203	-	-	101	0
<p>(1) Assumes Activation Energy = 0.7 Electron Volts            (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =18.66 FITS            (3) Mean Time Between Failure in Years = 6117.67            Note: 1 FIT = 1 Failure in One Billion Hours.            Note 2: HAST, Temp Cycle &amp; Thermal Shock are subjected to J-STD-020 MSL1 Preconditioning</p>					

# Reliability Data Report

## Report Number: R549

Report generated on: Wed Feb 10 17:20:27 PST 2016

OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HRS (+125°C) <sup>1</sup>	No. of FAILURES <sup>2, 3</sup>
SOIC/MSOP	308	1023	1310	205	0
QFN/DFN	231	0936	1403	231	0
SOT	231	1210	1319	129	0
Totals	770	-	-	565	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	251	0904	1310	35	0
SOIC/MSOP	77	1001	1001	12	0
SOT	77	1241	1241	12	0
Totals	405	-	-	59	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	177	1001	1310	68	0
SOIC/MSOP	77	1001	1001	38	0
SOT	75	1241	1241	37	0
Totals	329	-	-	143	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	177	1001	1310	68	0
SOIC/MSOP	76	1001	1001	38	0
SOT	77	1241	1241	77	0
Totals	330	-	-	183	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =20.97 FITS

(3) Mean Time Between Failure in Years = 5443.28

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

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