

# RELIABILITY REPORT





NOW PART OF



# Reliability Data Report

## Product Family R539

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LTC3119 / LTC3126 / LTC3601 / LTC3604 /  
LTC3605 / LTC3607 / LTC3621 / LTC3622 /  
LTC3624 / LTC3626 / LTC3633 / LTC3643 /  
LTC7149

# Reliability Data Report

## Report Number: R539

Report generated on: Fri Aug 04 14:02:16 PDT 2017

<b>OPERATING LIFE TEST</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HRS (+125°C)<sup>1</sup></b>	<b>No. of FAILURES <sub>2, 3</sub></b>
SOIC/MSOP	462	1210	1451	1003	0
QFN/DFN	1231	0822	1648	1322	0
Totals	1,693	-	-	2,325	0

<b>HIGHLY ACCELERATED STRESS TEST AT +130 DEG C / 85% RH</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HRS (+85°C)<sup>4</sup></b>	<b>No. of FAILURES</b>
QFN/DFN	1137	1626	1711	3104	0
Totals	1,137	-	-	3,104	0

<b>PRESSURE COOKER TEST AT 15 PSIG , +121 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE HRS</b>	<b>No. of FAILURES</b>
QFN/DFN	7004	1021	1715	497	0
SSOP/TSSOP	2345	1024	1702	57	0
SOIC/MSOP	453	1233	1540	58	0
Totals	9,802	-	-	612	0

<b>TEMP CYCLE FROM -65 TO 150 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE CYCLES</b>	<b>No. of FAILURES</b>
QFN/DFN	20966	1021	1715	3285	0
SSOP/TSSOP	2393	1024	1702	239	0
SOIC/MSOP	592	1233	1540	196	0
Totals	23,951	-	-	3,720	0

<b>THERMAL SHOCK FROM -65 TO 150 DEG C</b>					
<b>PACKAGE TYPE</b>	<b>SAMPLE SIZE</b>	<b>OLDEST DATE CODE</b>	<b>NEWEST DATE CODE</b>	<b>K DEVICE CYCLES</b>	<b>No. of FAILURES</b>
QFN/DFN	20162	1021	1715	2595	0
SSOP/TSSOP	2336	1024	1702	233	0
SOIC/MSOP	589	1233	1540	195	0
Totals	23,087	-	-	3,023	0

- (1) Assumes Activation Energy = 0.7 Electron Volts  
 (2) Failure Rate Equivalent to +55 °C, 60% Confidence Level =5.1 FITS  
 (3) Mean Time Between Failure in Years = 22399.33  
 (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	100	1241	1304	100	0
QFN/DFN	17477	1217	1626	16728	0
Totals	17,577	-	-	16,828	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	234	0936	1214	234	0
Totals	234	-	-	234	0