

RELIABILITY REPORT



RELIABILITY DATA

LTC6409

11/4/2011

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF ⁽²⁾ FAILURES
QFN/DFN	539	0839	1010	539.00	0
	539			539.00	0

• PRESSURE COOKER TEST AT 15 PSIG, +121°C⁽⁶⁾

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
QFN/DFN	148	0930	0952	37.13	0
	148			37.13	0

• TEMP CYCLE FROM -65°C to +150°C⁽⁶⁾

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
QFN/DFN	152	0930	0952	152.00	0
	152			152.00	0

• THERMAL SHOCK FROM -65°C to +150°C⁽⁶⁾

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
QFN/DFN	153	0930	0952	153.00	0
	153			153.00	0

(1) Sample size too small for meaningful FIT calculations

(2) FIT by Process technology below, refer to LTC Reliability Data Pack:

http://www.linear.com/designtools/quality/Rel_Data_Pack.pdf

(3) Assumes Activation Energy = 1.0 Electron Volts

(4) Failure Rate Equivalent to +55°C, 60% Confidence Level = 3.39 FITS

(5) Mean Time Between Failures in Years = 33,660

(6) Environmental data presented for same Process and Package Technology. Mechanical tests preceded by J-STD-020 Preconditioning.

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