

RELIABILITY REPORT



RELIABILITY DATA

LTC2938 / LTC2939 / LTC4224 / LTC4268 / LTC4269 / LTC4278 / LTC4360/61/62

7/7/2011

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF FAILURES ⁽²⁾
SOIC/SOT/MSOP	464	0804	0911	360.94	0
QFN/DFN	387	0726	1005	387.00	0
	851			747.94	0

• HIGHLY ACCELERATED STRESS TEST AT +131°C/85%RH

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽⁴⁾ AT +85°C	NUMBER OF FAILURES
QFN/DFN	50	0710	0710	168.00	0
	50			168.00	0

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

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
SOIC/SOT/MSOP	150	0838	0838	50.40	0
QFN/DFN	691	0651	1013	148.27	0
	841			198.67	0

• TEMP CYCLE FROM -65°C to +150°C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOIC/SOT/MSOP	150	0838	0838	75.00	0
QFN/DFN	695	0651	1013	432.20	0
	845			507.20	0

• THERMAL SHOCK FROM -65°C to +150°C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOIC/SOT/MSOP	148	0838	0838	74.00	0
QFN/DFN	741	0651	1013	444.30	0
	889			518.30	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 15.78 FITS

(3) Mean Time Between Failures in Years = 7,233

(4) Assumes 20X Acceleration from 85°C to +131°C

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