

RELIABILITY REPORT



RELIABILITY DATA
LTC5598
8/26/2010

• 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	151 151	0901	0901	86.94 86.94	0 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
SOIC/SOT/MSOP	77	0706	0706	25.87	0
QFN/DFN	558 635	0639	0850	125.09 150.96	0 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
SOIC/SOT/MSOP	70	0706	0706	70.00	0
QFN/DFN	555 625	0639	0850	376.80 446.80	0 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
SOIC/SOT/MSOP	76	0706	0706	76.00	0
QFN/DFN	508 584	0639	0850	399.00 469.00	0 0

(1) Sample size is too small to provide meaningful FIT.

(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 = 0.7 Electron Volts

(4) Failure Rate Equivalent to +55°C, 60% Confidence Level = 11.76 FITS

(5) Mean Time Between Failures in Years = 9,703

(6) Environmental data presented for same Process Technology.

Mechanical tests preceded by J-STD-020 Preconditioning.

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