

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.