

# RELIABILITY DATA

## LTC1040 / 1041 / 1042

8/21/2006

### • OPERATING LIFE TEST

| PACKAGE TYPE | SAMPLE SIZE | OLDEST DATE CODE | NEWEST DATE CODE | K DEVICE HOURS <sup>(1)</sup><br>AT +125°C | NUMBER OF <sup>(2)</sup><br>FAILURES |
|--------------|-------------|------------------|------------------|--|--------------------------------------|
| CERDIP       | 809         | 8601             | 0051             | 845.53                                     | 1                                    |
| PLASTIC DIP  | 322         | 8601             | 9651             | 430.70                                     | 0                                    |
|              | 1,131       |                  |                  | 1,276.23                                   | 1                                    |

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

| PACKAGE TYPE  | SAMPLE SIZE | OLDEST DATE CODE | NEWEST DATE CODE | K DEVICE HOURS | NUMBER OF FAILURES |
|---------------|-------------|------------------|------------------|----------------|--------------------|
| PLASTIC DIP   | 1,282       | 8648             | 0025             | 76.12          | 0                  |
| SOIC/SOT/MSOP | 845         | 9124             | 0030             | 28.56          | 0                  |
|               | 2,127       |                  |                  | 104.68         | 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 |
|---------------|-------------|------------------|------------------|-----------------|--------------------|
| CERDIP        | 15          | 8614             | 8614             | 0.15            | 0                  |
| PLASTIC DIP   | 680         | 9133             | 0615             | 68.00           | 0                  |
| SOIC/SOT/MSOP | 440         | 9124             | 0030             | 44.00           | 0                  |
|               | 1,135       |                  |                  | 112.15          | 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 |
|---------------|-------------|------------------|------------------|-----------------|--------------------|
| PLASTIC DIP   | 190         | 9133             | 9844             | 19.00           | 0                  |
| SOIC/SOT/MSOP | 241         | 9124             | 9743             | 24.10           | 0                  |
|               | 431         |                  |                  | 43.10           | 0                  |

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 20.47 FITS

(3) Mean Time Between Failures in Years = 5,573

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