

**RELIABILITY DATA**  
**LT1317/1766/1940/1944/1946/1947/1948/1949/1956/1961**

**8/12/2002**

**• OPERATING LIFE TEST**

| PACKAGE TYPE  | SAMPLE SIZE | OLDEST DATE CODE | NEWEST DATE CODE | K DEVICE HOURS <sup>(1)</sup> AT +125°C | NUMBER OF <sup>(2)</sup> FAILURES |
|---------------|-------------|------------------|------------------|---|-----------------------------------|
| SOIC/SOT/MSOP | 419         | 9740             | 0201             | 419.00                                  | 0                                 |
| QFN           | 201         | 0102             | 0233             | 201.00                                  | 0                                 |
|               | 620         |                  |                  | 620.00                                  | 0                                 |

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

| PACKAGE TYPE | SAMPLE SIZE | OLDEST DATE CODE | NEWEST DATE CODE | K DEVICE HOURS <sup>(4)</sup> AT +85°C | NUMBER OF FAILURES |
|--------------|-------------|------------------|------------------|--|--------------------|
| QFN          | 36          | 0112             | 0112             | 69.12                                  | 0                  |
|              | 36          |                  |                  | 69.12                                  | 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 | 5,153       | 9812             | 0135             | 615.49         | 0                  |
| SSOP/TSSOP    | 200         | 0133             | 0137             | 24.33          | 0                  |
| QFN           | 944         | 0102             | 0112             | 343.96         | 0                  |
|               | 6,297       |                  |                  | 983.77         | 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 | 24,812      | 9812             | 0149             | 2,750.63        | 0                  |
| SSOP/TSSOP    | 300         | 0133             | 0137             | 54.00           | 0                  |
| QFN           | 153         | 0112             | 0112             | 81.09           | 0                  |
|               | 25,265      |                  |                  | 2,885.72        | 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 | 2,988       | 9812             | 0145             | 415.40          | 0                  |
| SSOP/TSSOP    | 100         | 0136             | 0136             | 10.00           | 0                  |
| QFN           | 152         | 0112             | 0112             | 126.16          | 0                  |
|               | 3,240       |                  |                  | 551.56          | 0                  |

(1) Assumes Activation Energy = 1.0 Electron Volts  
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 2.97 FITS  
(3) Mean Time Between Failures in Years = 38,410  
(4) Assumes 20X Acceleration from 85°C to +131°C  
Note: 1 FIT = 1 Failure in One Billion Hours.