

## RELIABILITY DATA

LTC1329/1426/27/28/46/48 LTC1454/56/58/59 LTC1659/1660/61/62/64/65

8/21/2006

### • 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 |
|---------------|-------------|------------------|------------------|---|-----------------------------------|
| SIDEBRAZE     | 188         | 9640             | 9740             | 194.56                                  | 0                                 |
| PLASTIC DIP   | 705         | 9613             | 9940             | 597.84                                  | 1                                 |
| SOIC/SOT/MSOP | 1,562       | 9640             | 0320             | 1,204.10                                | 0                                 |
| SSOP/TSSOP    | 103         | 9601             | 9837             | 103.07                                  | 0                                 |
|               | 2,558       |                  |                  | 2,099.57                                | 1                                 |

### • 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 |
|---------------|-------------|------------------|------------------|--|--------------------|
| SOIC/SOT/MSOP | 150         | 0205             | 0205             | 1,008.00                               | 0                  |
|               | 150         |                  |                  | 1,008.00                               | 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 |
|---------------|-------------|------------------|------------------|----------------|--------------------|
| PLASTIC DIP   | 700         | 9514             | 0607             | 18.90          | 0                  |
| SOIC/SOT/MSOP | 4,073       | 9504             | 0529             | 897.78         | 0                  |
| SSOP/TSSOP    | 858         | 9627             | 0525             | 225.48         | 0                  |
|               | 5,631       |                  |                  | 1,142.16       | 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 |
|---------------|-------------|------------------|------------------|-----------------|--------------------|
| PLASTIC DIP   | 498         | 9514             | 0522             | 49.85           | 0                  |
| SOIC/SOT/MSOP | 1,329       | 9517             | 0529             | 513.25          | 0                  |
| SSOP/TSSOP    | 690         | 9627             | 0525             | 351.12          | 0                  |
|               | 2,517       |                  |                  | 914.22          | 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   | 349         | 9517             | 0522             | 34.90           | 0                  |
| SOIC/SOT/MSOP | 1,472       | 9517             | 0529             | 913.53          | 0                  |
| SSOP/TSSOP    | 388         | 9627             | 0525             | 133.64          | 0                  |
|               | 2,209       |                  |                  | 1,082.07        | 0                  |

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 12.44 FITS

(3) Mean Time Between Failures in Years = 9,170

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

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