

# RELIABILITY REPORT



## RELIABILITY DATA

### LT1103 / 1105 / 1106 / 1107 / 1108 / 1109 / 1110 / 1111

**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 |
|--------------|-------------|------------------|------------------|---|-----------------------------------|
| FLATPAK/LCC  | 50          | 9320             | 9320             | 50.12                                   | 0                                 |
| SIDEBRAZE    | 44          | 9213             | 9213             | 293.46                                  | 0                                 |
| PLASTIC DIP  | 306         | 9130             | 9644             | 210.39                                  | 0                                 |
| SSOP/TSSOP   | 306         | 9326             | 9403             | 724.83                                  | 0                                 |
| TO-92        | 201         | 9501             | 9512             | 835.03                                  | 0                                 |
|              | 907         |                  |                  | 2,113.83                                | 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 |
|--------------|-------------|------------------|------------------|--|--------------------|
| PLASTIC DIP  | 150         | 9434             | 9440             | 112.00                                 | 0                  |
| SSOP/TSSOP   | 385         | 9326             | 9403             | 729.92                                 | 0                  |
| TO-92        | 185         | 9501             | 9602             | 239.64                                 | 0                  |
|              | 720         |                  |                  | 1,081.56                               | 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   | 3,338       | 9228             | 0133             | 157.79         | 0                  |
| SOIC/SOT/MSOP | 12,636      | 9124             | 0344             | 628.01         | 0                  |
| SSOP/TSSOP    | 230         | 9403             | 9403             | 234.26         | 0                  |
| TO-220        | 350         | 9236             | 0101             | 12.00          | 0                  |
| TO-92         | 477         | 9150             | 0601             | 88.11          | 0                  |
|               | 17,031      |                  |                  | 1,120.16       | 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   | 1,087       | 9228             | 0117             | 117.20          | 0                  |
| SOIC/SOT/MSOP | 2,216       | 9124             | 0344             | 421.46          | 0                  |
| SSOP/TSSOP    | 585         | 9328             | 9403             | 587.28          | 0                  |
| TO-220        | 300         | 9625             | 0223             | 30.00           | 0                  |
| TO-92         | 127         | 9150             | 0601             | 39.65           | 0                  |
|               | 4,315       |                  |                  | 1,195.59        | 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   | 900         | 9239             | 9813             | 156.79          | 0                  |
| SOIC/SOT/MSOP | 1,812       | 9124             | 0344             | 244.00          | 0                  |
| SSOP/TSSOP    | 433         | 9333             | 9403             | 306.99          | 0                  |
| TO-220        | 100         | 9624             | 0101             | 10.00           | 0                  |
| TO-92         | 127         | 9150             | 0601             | 159.00          | 0                  |
|               | 3,372       |                  |                  | 876.78          | 0                  |

(1) Assumes Activation Energy = 1.0 Electron Volts  
 (2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.87 FITS  
 (3) Mean Time Between Failures in Years = 131,123  
 (4) Assumes 20X Acceleration from 85°C to +131°C  
 Note: 1 FIT = 1 Failure in One Billion Hours.