

RELIABILITY REPORT



RELIABILITY DATA
LT1077 / 78 / 79 / 1178 / 79 / LT1101 / LT2078 / 79 / 2178 / 79
8/21/2006

• OPERATING LIFE TEST

| PACKAGE TYPE | SAMPLE SIZE | OLDEST DATE CODE | NEWEST DATE CODE | K DEVICE HOURS ⁽¹⁾ AT +125°C | NUMBER OF ⁽²⁾ FAILURES |
|---------------|-------------|------------------|------------------|---|-----------------------------------|
| CERDIP | 764 | 8826 | 0327 | 1,628.77 | 0 |
| HERMETIC | 601 | 8750 | 0325 | 1,726.29 | 2 |
| PLASTIC DIP | 3,542 | 8913 | 9942 | 6,530.22 | 2 |
| SOIC/SOT/MSOP | 2,119 | 8906 | 9944 | 5,396.50 | 1 |
| | 7,026 | | | 15,281.78 | 5 |

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

| PACKAGE TYPE | SAMPLE SIZE | OLDEST DATE CODE | NEWEST DATE CODE | K DEVICE HOURS ⁽⁴⁾ AT +85°C | NUMBER OF FAILURES |
|---------------|-------------|------------------|------------------|--|--------------------|
| PLASTIC DIP | 499 | 9113 | 9704 | 665.40 | 0 |
| SOIC/SOT/MSOP | 1,442 | 9239 | 0606 | 1,652.60 | 0 |
| | 1,941 | | | 2,318.00 | 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 | 50,294 | 9109 | 0530 | 2,296.45 | 0 |
| SOIC/SOT/MSOP | 34,965 | 9051 | 0421 | 2,570.38 | 0 |
| TO-220 | 100 | 9317 | 9911 | 3.60 | 0 |
| | 85,359 | | | 4,870.43 | 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 | 126 | 9051 | 0327 | 90.30 | 0 |
| HERMETIC | 85 | 9122 | 0325 | 13.60 | 0 |
| PLASTIC DIP | 3,891 | 9113 | 0530 | 1,329.43 | 0 |
| SOIC/SOT/MSOP | 6,406 | 8850 | 0421 | 1,927.72 | 0 |
| TO-220 | 50 | 9911 | 9911 | 5.00 | 0 |
| | 10,558 | | | 3,366.05 | 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 |
|---------------|-------------|------------------|------------------|-----------------|--------------------|
| CERDIP | 255 | 9051 | 0327 | 51.98 | 0 |
| HERMETIC | 34 | 9122 | 9122 | 8.16 | 0 |
| PLASTIC DIP | 2,405 | 8830 | 0530 | 1,209.14 | 0 |
| SOIC/SOT/MSOP | 5,163 | 9051 | 0421 | 2,313.16 | 0 |
| TO-220 | 50 | 9911 | 9911 | 5.00 | 0 |
| | 7,907 | | | 3,587.44 | 0 |

(1) Assumes Activation Energy = 1.0 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.83 FITS
(3) Mean Time Between Failures in Years = 137,442
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.