



**RELIABILITY DATA**  
**LM107 / LM307 / OP02**  
**10/26/2003**

**• 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 |
|--------------|-------------|------------------|------------------|---|-----------------------------------|
| HERMETIC     | 514         | 8423             | 8801             | 2,429.59                                | 0                                 |
|              | 514         |                  |                  | 2,429.59                                | 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 |
|---------------|-------------|------------------|------------------|--|--------------------|
| SOIC/SOT/MSOP | 33          | 9446             | 9446             | 15.84                                  | 0                  |
|               | 33          |                  |                  | 15.84                                  | 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 | 300         | 9330             | 9450             | 7.20           | 0                  |
|               | 300         |                  |                  | 7.20           | 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 |
|---------------|-------------|------------------|------------------|-----------------|--------------------|
| HERMETIC      | 45          | 8427             | 8427             | 1.80            | 0                  |
| SOIC/SOT/MSOP | 50          | 9450             | 9450             | 5.00            | 0                  |
|               | 95          |                  |                  | 6.80            | 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 |
|---------------|-------------|------------------|------------------|-----------------|--------------------|
| HERMETIC      | 30          | 8427             | 8723             | 0.45            | 0                  |
| SOIC/SOT/MSOP | 100         | 9446             | 9446             | 2.40            | 0                  |
|               | 130         |                  |                  | 2.85            | 0                  |

(1) Assumes Activation Energy = 1.0 Electron Volts  
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.76 FITS  
(3) Mean Time Between Failures in Years = 150,101  
(4) Assumes 20X Acceleration from 85°C to +131°C  
Note: 1 FIT = 1 Failure in One Billion Hours.