

# RELIABILITY DATA

## LT1074 / LT1076 / LT1176

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
TO-3	77	0318	0318	431.20	0
DD PACK	838	9148	9549	3,513.79	0
TO-220	1,598	9125	0234	2,534.16	0
	2,513			6,479.15	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
DD PACK	540	9148	0310	403.52	0
TO-220	1,117	9125	9646	1,385.38	0
	1,657			1,788.90	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	1,349	9325	0241	64.96	0
SOIC/SOT/MSOP	1,973	9323	9933	65.44	0
DD PACK	7,645	9148	0552	461.23	0
TO-220	15,274	8664	0617	894.19	0
	26,241			1,485.83	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	250	9426	0241	25.00	0
SOIC/SOT/MSOP	1,820	9607	9933	389.90	0
DD PACK	13,236	9148	0552	1,848.40	0
TO-220	22,731	8664	0617	3,138.64	0
	38,037			5,401.94	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	1,158	9521	0032	360.71	0
DD PACK	2,048	9148	0552	426.66	0
TO-220	7,532	9125	0617	1,238.70	0
	10,738			2,026.07	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.28 FITS

(3) Mean Time Between Failures in Years = 407,418

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

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