

# RELIABILITY DATA

## LT1083 / 84 / 85 / 86 / 87 / 1185

### 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
HERMETIC	80	0330	0330	80.80	0
TO-3	2,286	8701	0305	4,387.47	3
DD PACK	1,356	9404	9727	6,778.39	0
TO-220	6,097	8951	0045	20,119.54	0
TO-3P	6,651	8710	0046	18,625.82	0
	16,470			49,992.02	3

#### • 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	39	0007	0007	37.44	0
DD PACK	1,069	9209	9549	1,899.06	0
TO-220	2,149	9119	9904	5,456.78	0
TO-3P	907	9133	9913	1,882.62	0
	4,164			9,275.90	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
DD PACK	18,751	9209	0620	2,037.04	0
TO-220	35,180	8951	0611	3,326.71	0
TO-3P	23,740	8710	0623	2,789.54	0
	77,671			8,153.29	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	34	0237	0330	3.40	0
TO-3	474	9028	0539	110.05	0
DD PACK	22,666	9209	0620	4,954.99	0
TO-220	27,047	8914	0611	4,736.61	0
TO-3P	16,249	8825	0617	4,281.19	0
	66,470			14,086.24	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	34	0237	0330	0.51	0
TO-3	370	9028	0539	135.91	0
DD PACK	9,243	9209	0620	3,213.07	0
TO-220	12,569	8951	0611	3,533.43	0
TO-3P	12,293	8825	0617	3,676.35	0
	34,509			10,559.27	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.17 FITS

(3) Mean Time Between Failures in Years = 671,042

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

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