

RELIABILITY DATA

LM117 / 317 LT117 / 317 / RH117

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
HERMETIC	3,485	8301	0244	5,752.56	0
TO-3	1,720	8401	0319	3,725.53	0
TO-220	378	8515	8917	2,389.93	0
	5,583			11,868.02	0

• 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
TO-220	135	8917	9126	405.00	0
	135			405.00	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
TO-220	2,125	8914	0452	843.54	0
TO-3P	127	8914	9444	167.21	0
	2,252			1,010.75	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
FLATPAK/LCC	17	0206	0206	1.70	0
HERMETIC	1,415	8321	0527	191.90	0
TO-3	779	8433	0017	83.30	0
TO-220	1,691	8618	0452	199.30	0
	3,902			476.20	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
FLATPAK/LCC	17	0206	0206	0.26	0
HERMETIC	927	8321	0527	91.20	0
TO-3	538	8445	0017	106.59	0
TO-220	562	8618	0142	75.30	0
TO-3P	154	8914	8914	36.19	0
	2,198			309.52	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.15 FITS

(3) Mean Time Between Failures in Years = 760,514

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

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