

RELIABILITY DATA

LT1431

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 FAILURES ⁽²⁾
PLASTIC DIP	245	9109	0021	308.35	0
TO-92	698	9013	9639	2,436.35	0
	943			2,744.70	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-92	280	9246	9527	404.32	0
	280			404.32	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	2,045	9109	9924	69.67	0
SOIC/SOT/MSOP	12,704	9109	0614	544.11	0
TO-92	1,694	9137	0317	198.59	0
	16,443			812.37	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	193	9109	9501	19.30	0
SOIC/SOT/MSOP	2,463	9350	0614	749.00	0
TO-92	421	9241	0317	166.84	0
	3,077			935.14	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	1,558	9427	0614	379.00	0
TO-92	558	9544	0317	212.88	0
	2,116			591.88	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.67 FITS

(3) Mean Time Between Failures in Years = 170,264

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

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