LINEAR TECHNOLOGY

RELIABILITY DATA
LT1028 / LT1115

9/8/2000

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS (1) AT +125°C	NUMBER OF (2) FAILURES
CERDIP	139	8615	9213	571.00	0
HERMETIC	433	8601	9405	1,426.13	0
PLASTIC DIP	209	8601	9213	259.36	0
	781			2,256.49	0

• HIGHLY ACCELERATED STRESS TEST AT +131°C/85%RH

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICF HOURS (4) AT +85°C	NUMBER OF FAILURES
PLASTIC DIP	173	9108	2007	345.76	0
SOIC/SOT/MSOP	359	9414	2014	344.64	0
	532			690.40	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	1,306	9108	9629	156.98	0
SOIC/SOT/MSOP	2,885	9131	9934	83.04	0
	4,191			240.02	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
CERDIP	15	8615	8615	0.15	0
PLASTIC DIP	463	9108	9743	49.24	0
SOIC/SOT/MSOP	384	9131	9934	49.65	0
	862			99.04	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
PLASTIC DIP	280	9130	9452	28.00	0
SOIC/SOT/MSOP	274	9131	9809	30.10	0
	554			58.10	0

(1) Assumes Activation Energy = 1.0 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.82 FITS
(3) Mean Time Between Failures in Years = 139,118
(4) Assumes 20X Acceleration from 85C to +131C
Note: 1 FIT = 1 Failure in One Billion Hours.