

RELIABILITY DATA

LM118 / 218 / 318 / RH118

10/26/2003

• 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	584	8530	9725	1,487.05	0
FLATPAK/LCC	365	8746	9806	399.11	0
HERMETIC	1,313	8301	9619	2,465.82	1
PLASTIC DIP	327	9010	9322	670.13	0
	2,589			5,022.11	1

• 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
PLASTIC DIP	60	9010	9010	115.20	0
	60			115.20	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	3,656	9203	9917	144.96	0
SOIC/SOT/MSOP	50	9427	9427	1.20	0
	3,706			146.16	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	637	8344	9528	424.15	0
FLATPAK/LCC	154	8746	0118	14.05	0
HERMETIC	414	8443	9846	30.06	0
PLASTIC DIP	424	8627	9502	415.45	0
	1,629			883.71	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
CERDIP	547	8344	9528	243.97	0
FLATPAK/LCC	69	8746	0118	1.04	0
HERMETIC	237	8443	9846	112.73	0
PLASTIC DIP	122	9010	9352	158.50	0
SOIC/SOT/MSOP	50	9427	9427	5.00	0
	1,025			521.24	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.81 FITS

(3) Mean Time Between Failures in Years = 140,836

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

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