

RELIABILITY DATA LT1074 / LT1076 / LT1176

9/13/99

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF ⁽²⁾ FAILURES
DD PACK	838	9148	9549	3,513.79	0
TO-220	1,267	9125	9530	2,350.43	0
	2,105			5,864.21	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
DD PACK	494	9148	9549	359.36	0
TO-220	1,117	9125	9646	1,385.38	0
	1,611			1,744.74	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	1,199	9325	9625	53.76	0
SOIC/SOT/MSOP	1,878	9323	9919	63.16	0
DD PACK	6,464	9148	9902	430.49	0
TO-220	11,806	9125	9922	762.06	0
	21,347			1,309.47	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	150	9426	9621	15.00	0
SOIC/SOT/MSOP	1,781	9607	9919	359.05	0
DD PACK	6,531	9148	9911	944.40	0
TO-220	9,087	9125	9913	1,788.65	0
	17,549			3,107.10	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	1,058	9521	9919	350.66	0
DD PACK	1,266	9148	9902	255.66	0
TO-220	4,139	9125	9922	899.40	0
	6,463			1,505.72	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.31 FITS

(3) Mean Time Between Failures in Years = 367,991

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

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