

RELIABILITY DATA LTC1150 / 1151 / 1152

6/24/2011

• 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	333	9051	0130	271.77	0
PLASTIC DIP	398	9131	9439	315.58	0
	731			587.35	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
PLASTIC DIP	140	9131	0003	189.30	0
SOIC/SOT/MSOP	681	9201	0935	713.40	0
	821			902.70	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	600	9510	0401	19.20	0
SOIC/SOT/MSOP	1,145	9514	0947	168.79	0
	1,745			187.99	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	725	9131	0417	95.00	0
SOIC/SOT/MSOP	662	9528	0947	482.00	0
	1,387			577.00	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	330	9131	0046	36.15	0
SOIC/SOT/MSOP	654	9201	0947	483.40	0
	984			519.55	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 20.15 FITS

(3) Mean Time Between Failures in Years = 5,661

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

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