

RELIABILITY DATA

R585

LT8643S, LT8645S, LT8646S, LT8650S

6/22/2018

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF ⁽²⁾ FAILURES
LQFN	308 308	1541	1703	308.00 308.00	0 0

• BIASED HIGHLY ACCELERATED STRESS TEST AT +130°C/85%RH

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE	K DEVICE HOURS	NUMBER OF FAILURES
LQFN	175 175	1610	1703	16.80 16.80	0 0

• UNBIASED HIGHLY ACCELERATED STRESS TEST AT +130°C/85%RH

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE	K DEVICE HOURS	NUMBER OF FAILURES
LQFN	385 385	1610	1627	36.96 36.96	0 0

• TEMP CYCLE FROM -65°C to +150°C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE	K DEVICE CYCLES	NUMBER OF FAILURES
LQFN	415 415	1610	1627	830.00 830.00	0 0

• THERMAL SHOCK FROM -65°C to +150°C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE	K DEVICE CYCLES	NUMBER OF FAILURES
LQFN	435 435	1610	1627	340.50 340.50	0 0

• HIGH TEMPERATURE BAKE +150°C

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE	K DEVICE HOURS	NUMBER OF FAILURES
LQFN	358 358	1610	1627	485.00 485.00	0 0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 38.23 FITS

(3) Mean Time Between Failures in Years = 2,986

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