

Reliability Testing Summary

0.22 μ m

Technology: Si Gate CMOS
Device Type: XCVXXX
Package Type: Various
Assumed Activation Energy: 0.70 ev @ C.L. = 60%

	Life Test	Hast	Temp. Cycle
	145C	100 Hrs 130C/85%	1,000Cycs. -65C/+150C
Combined Lot:	21	1	1
Failures:	6	0	0
Device on test:	1,025	23	34
Actual device hours:	1,117,744	2,300	34,000
Mean:	1,090	100	1,000
Equivalent device hours @ Tj=125C:	2,967,035		
Equivalent device hours @ Tj=70C:	230,903,313		
Equivalent device hours @ Tj=25C:	2.79E+09		
Failure Rate in FITS @ Tj=70C:	32		
Failure Rate in FITS @ Tj=25C:	3		

*The data collected from process qualification & Reliability monitor program

Reliability Testing Summary

0.18 μm

Technology: Si Gate CMOS
Device Type: XCVXXXE
Package Type: Various
Assumed Activation Energy: 0.70 ev @ C.L. = 60%

	Life Test	Hast	Temp. Cycle
	145C	100Hrs 130C/85%	1,000Cycs. -65C/+150C
Combined Lot:	13	1	1
Failures:	2	0	0
Device on test:	500	76	68
Actual device hours:	318,156	7,600	68,000
Mean:	636	100	1,000
Equivalent device hours @ Tj=125C:	844,540		
Equivalent device hours @ Tj=70C:	65,724,597		
Equivalent device hours @ Tj=25C:	7.95E+08		
Failure Rate in FITS @ Tj=70C:	47		
Failure Rate in FITS @ Tj=25C:	4		

*The data collected from process qualification & Reliability monitor program