

Quick Start Micro Training LLC, Dr. Ted Dellin
QUICK START Integrated Circuit Reliability Course

Quick Start Micro Training LLC *Very Quick Start™*
 Integrated Circuits Reliability Course

QUICK START VERSION SAMPLE SLIDES

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www.quickstartmicro.com Version 1.0 – 6/09 Quick Start Version 1

Quick Start Version Includes Complete
 VERY Quick Start Version & More

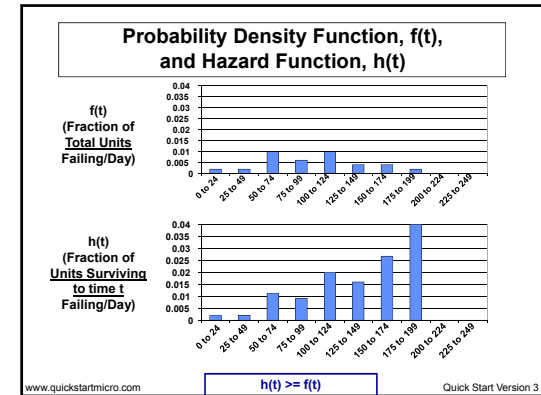
Quick Start Version

**VERY
 Quick Start
 IC Reliability**

+

**Additional
 Depth & Breadth
 “Digging Deeper”**

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Defects Can Cause Both Yield and Latent Reliability Problems

YIELD KILLER?

Yes Maybe No

Yes Maybe No

LATENT RELIABILITY PROBLEM?

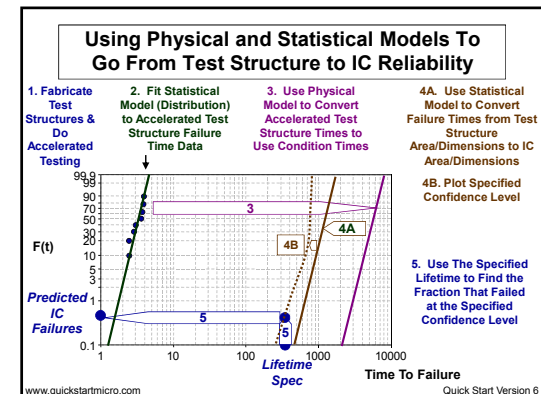
(Shirley)

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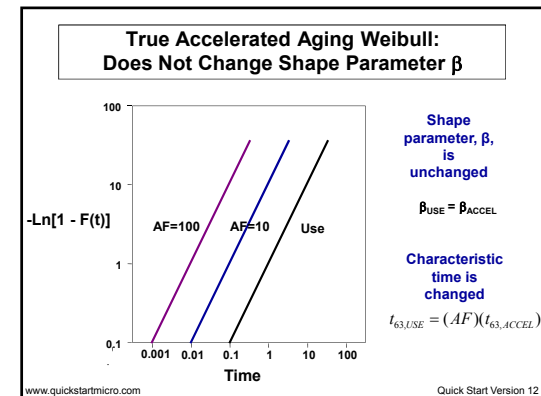
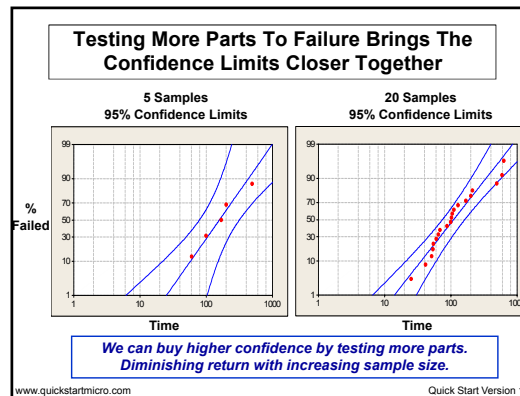
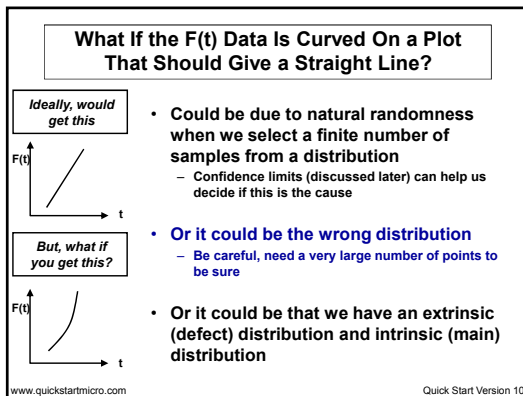
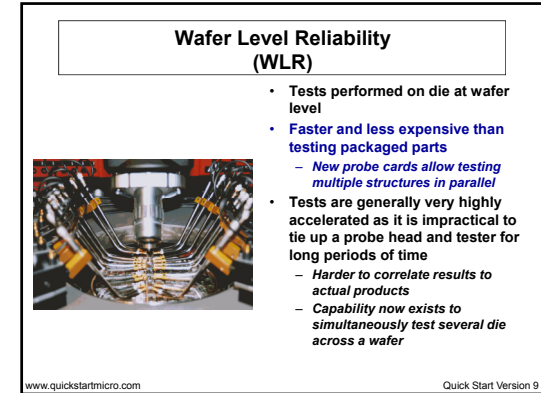
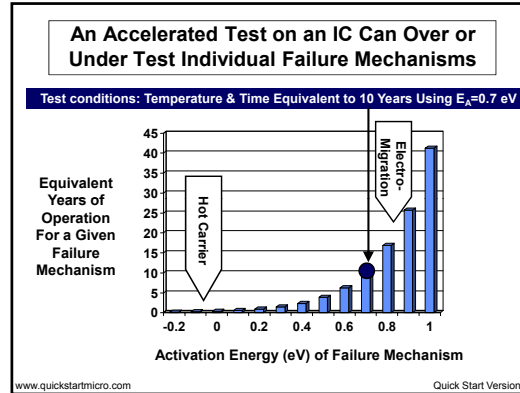
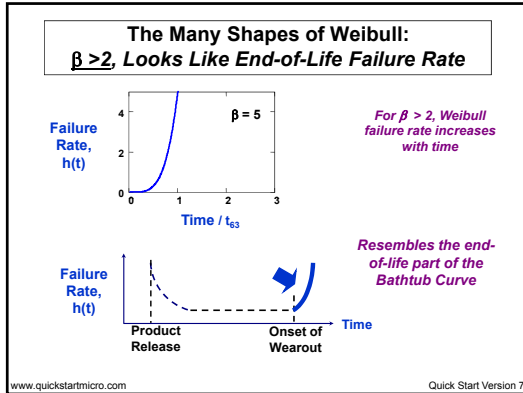
The “Just Enough,” Application-Specific IC

- As tradeoffs become more difficult, it becomes harder to make a robust, one-size-fits-all technology
- Technology being optimized around the needs of major applications
- Need to produce the “Just Enough” IC that meets, but does not exceed, customer requirements
 - Tradeoffs are so challenging it is hard to just meet requirements
 - Exceeding requirements is an “opportunity cost” that should be avoided – use excess capability to give customer what it wants
- This has lead to a reduction in reliability margins**

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