

ALL CHARTS ARE UNCLASSIFIED

## Alternate Grade Part - What Is It and How Is It Used

- A part that can be utilized in an application in place of a space grade part
  - It will perform the same circuit function
  - It will have the same or better reliability
  - Be produced by a main-line manufacturer on a high-volume line
  - Have sufficient pedigree to satisfy mission requirements
  - Have radiation test data and show it meets or can meet with mitigations mission/program requirements
- Minimum Data Requirements
  - Technology Characterization Results
  - Screening/Testing Results
  - Qualification Results
  - Physics of Failure Information
  - Long Term Reliability Results
  - Types of Parts Considered
    - Military
    - Automotive
    - Industrial/Commercial
- Concerns
  - Availability
  - Testing
  - Reliability and Radiation
  - Data and Documentation
- Types of Missions
  - Class A rarely used: Class B maybe used: Class C OK to use: Class D YES