Discrete Semiconductors Facility Assessment and Quality

This section describes the quality level requirement for Discrete Semiconductors. Use this section to determine the minimal quality level and/or when assessing a facility.

Discrete Semiconductor manufacturers shall have an approved Quality System. The facility should be QML-19500 and ISO-9000 certified, as a minimum.

The Military Discrete Semiconductor industry has five quality level categories for encapsulated parts. They are from lowest to highest reliability JAN, JANTX, JANTXV, JANFS, and JANS. There are two quality levels for non-encapsulated parts, being JANHC for military, and JANKC for space. These parts and their manufacturers are listed in the QML-19500 (Qualified Manufacturers List for Products Qualified Under Performance Specification MIL-PRF-19500 for Semiconductor Devices). When designing Discrete Semiconductors into “severe” environments, QML-19500 parts at the JANTX level (as a minimum) are required. For “normal” environments, automotive parts certified to QS-9000, industrial grade parts certified to ISO-9000, and/or QML-19500 parts less than the JANTX level shall be used, as a minimum.

Non-military consumer parts must adhere to the quality and reliability level of their respective application and environment. Non-military part manufacturers, as a minimum, shall be certified to ISO 9000.