

The documentation and process conversion measures necessary to comply with this document shall be completed by 22 June 2019.

INCH-POUND
MIL-PRF-19500/718A
22 March 2019
SUPERSEDING
MIL-PRF-19500/718
12 December 2003

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, DIODE, SILICON, BIPOLAR TRANSIENT VOLTAGE SUPPRESSOR, TYPES 1N6950 THROUGH 1N6986, JAN, JANTX, JANTXV, AND JANS

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of
this specification sheet and [MIL-PRF-19500](#).

1. SCOPE

* 1.1 Scope. This specification covers the performance requirements for 5,000 watt, peak, pulse power, silicon, transient, voltage suppressor diodes. Four levels of product assurance (JAN, JANTX, JANTXV, and JANS) are provided for each device as specified in [MIL-PRF-19500](#).

* 1.2 Physical dimensions. The device package for the encapsulated device type is as follow: in accordance see [figure 1](#).

1.3 Maximum ratings. Maximum ratings are as shown in maximum test ratings herein (see [3.7](#)), and as follows:

$P_{M(AV)} = 5.0 \text{ W}$ (derate at $33.35 \text{ mW}/^{\circ}\text{C}$ above $T_A = +25^{\circ}\text{C}$) (see [figure 2](#), and [6.4](#)).

$-65^{\circ}\text{C} \leq T_j \leq +175^{\circ}\text{C}$ (ambient), $-65^{\circ}\text{C} \leq T_{STG} \leq +175^{\circ}\text{C}$ (ambient).

$P_{PP} = 5,000 \text{ W}$ (see [figure 3](#)) at $t_p = 10/1000 \mu\text{s}$ (see [figure 4](#)).

1.4 Primary electrical characteristics at $T_A = +25^{\circ}\text{C}$. Primary electrical characteristics are as shown in maximum test ratings herein (see [3.7](#)).

* Comments, suggestions, or questions on this document should be addressed to DLA Land and Maritime, ATTN: VAC, P.O. Box 3990, Columbus, OH 43218-3990, or emailed to Semiconductor@dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>

AMSC N/A

FSC 5961



MIL-PRF-19500/718A

- * 1.5 Part or Identifying Number (PIN). The PIN is in accordance with [MIL-PRF-19500](#), and as specified herein. See [6.5](#) for PIN construction example and [6.6](#) for a list of available PINs.
- * 1.5.1 JAN certification mark and quality level for encapsulated devices. The quality level designators for encapsulated devices that are applicable for this specification sheet from the lowest to the highest level are as follows: "JAN", "JANTX", "JANTXV" and "JANS".
- * 1.5.2 Device type. The designation system for the device types of semiconductors covered by this specification sheet are as follows.
- * 1.5.2.1 First number and first letter symbols. The semiconductors of this specification sheet use the first number and letter symbols "1N".
- * 1.5.2.2 Second number symbols. The second number symbols for the semiconductors covered by this specification sheet are as follows: "6950" through "6986".
- * 1.5.3 Lead finish. The lead finishes applicable to this specification sheet are listed on [QPDSIS-19500](#).

2. APPLICABLE DOCUMENTS

- * 2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

- 2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contact.

DEPARTMENT OF DEFENSE SPECIFICATIONS

[MIL-PRF-19500](#) - Semiconductor Devices, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

[MIL-STD-750](#) - Test Methods for Semiconductor Devices.

- * (Copies of these documents are available online at <https://quicksearch.dla.mil>.)
- * 2.3 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document specification and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.