The documentation and process conversion measures necessary to comply with this document shall be completed by 28 November 2019.

INCH-POUND

MIL-PRF-19500/437J
28 July 2019
SUPERSEDING
MIL-PRF-19500/437H
w/AMENDMENT 2
9 April 2014

PERFORMANCE SPECIFICATION SHEET

# SEMICONDUCTOR DEVICE, DIODE, SILICON, LOW-NOISE VOLTAGE REGULATOR, TYPES 1N5518B-1, 1N5518C-1, 1N5518D-1 THROUGH 1N5546B-1, 1N5546C-1, 1N5546D-1, ENCAPSULATED (AXIAL LEADED AND SURFACE MOUNT PACKAGE) AND UNENCAPSULATED, 5, 2, AND 1 PERCENT VOLTAGE TOLERANCE, QUALITY LEVELS JAN, JANTX, JANTXV, JANHC, AND JANKC

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 500 milliwatt, silicon, low-noise, voltage regulator diodes with voltage tolerances of 5 percent, 2 percent, and 1 percent. Three levels of product assurance (JAN, JANTX, and JANTXV) are provided for each encapsulated device type and two levels of product assurance (JANHC and JANKC) are provided for each un-encapsulated device type die as specified in MIL-PRF-19500.

1.2 Physical dimensions.

1.2.1 Package outlines. The device package outlines for encapsulated device types are as follows: Axial leaded DO-204AH (formerly DO-35) in accordance with figure 1 and round end cap surface mount (DO-213AA) in accordance with figure 2.

1.2.2 Un-encapsulated die. The dimensions and topography for JANHC and JANKC un-encapsulated die are in accordance with figure 3.

1.3 Maximum ratings. Maximum ratings are shown in maximum test ratings herein (see 3.8) herein and as follows:

a. $P_{TL}$ = 500 mW (DO-35) at $T_L$ = +50°C, L = .375 inch (9.53 mm); both ends of case or diode body to heat sink at L = .375 inch (9.53 mm). (Derate to 0 at +175°C).

b. $P_{TEC}$ = 500 mW (DO-213AA) at $T_{EC}$ = +125°C. (Derate to 0 at +175°C).

c. $P_{TPCB}$ = 400 mW, TA = +55°C. (Derate to 0 at +175°C).

d. $-65°C \le T_J \le +175°C$; $-65°C \le T_{STG} \le +175°C$.

Comments, suggestions, or questions on this document should be addressed to DLA Land and Maritime, 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.

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