

The documentation and process conversion measures necessary to comply with this amendment shall be completed by 14 October 1998

INCH-POUND

MIL-PRF-19500/124H  
AMENDMENT 1  
14 July 1998

PERFORMANCE SPECIFICATION

SEMICONDUCTOR DEVICE, DIODE, SILICON, VOLTAGE REGULATOR B AND RB  
TYPES 1N2970 THROUGH 1N2977, 1N2979, 1N2980, 1N2982, 1N2984  
THROUGH 1N2986, 1N2988 THROUGH 1N2993, 1N2995, 1N2997, 1N2999  
THROUGH 1N3005, 1N3007, 1N3008, 1N3009, 1N3011, 1N3012, 1N3014, 1N3015,  
PLUS A AND RA TYPES 1N3993 THROUGH 1N3998, JAN, JANTX, JANTXV, AND JANS

This amendment forms a part of MIL-PRF-19500/124H, dated 20 June 1997 and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.1 Scope: delete and substitute as follows:

"1.1 Scope. This specification covers the performance requirements for 10 watt, silicon, voltage regulator diodes: A or B type (standard polarity); RA or RB type (reverse polarity). Four levels of product assurance are provided for each encapsulated device type as specified in MIL-PRF-19500."

PAGE 2

3.2, title; delete "detail" and substitute "performance".

3.4.1: Delete "Lead finish shall be gold, silver, or tin plated."

PAGE 5

4. delete title and substitute "VERIFICATION".

4.3, screen 11, JANS, second line: Delete "or 1 of" and substitute "or 1 percent of"; fourth line: Delete "± 2.5" and substitute "± 2.5 percent."

4.3, screen 12, JANS level and JANTX and JANTXV levels, delete: "See 4.2.1" (two places) and substitute: "See 4.3.1" (two places).

4.4.1, second line: Delete "table IV" and substitute "table II."

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The attached insertable replacement pages listed below are replacements for stipulated pages. When the new pages have been entered in the document, insert the amendment as the cover sheet to the specification.

<u>Replacement page</u>	<u>Page replaced</u>
3	3
4	4

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PAGE 6

First 4.4.3.1; delete "4.4.3.1" and substitute "4.4.2.1".

First 4.4.3.2; delete "4.4.3.2" and substitute "4.4.2.2".

Second 4.4.3.1, after subgroup C6, add the following:

"C7	4071	22 devices, c = 0, JAN, JANTX, and JANTXV levels only. Temperature coefficient of breakdown voltage (see 4.5.3 and 4.5.4). $I_Z$ = column 5 of table III, $T_1 = 30^\circ\text{C} \pm 3^\circ\text{C}$ ; $T_2 = T_1 + 100^\circ\text{C}$ ; each subplot; $\alpha V_Z = \%/^\circ\text{C}$ column 14 of table III. Voltage regulation (see 4.5.2) each subplot. $V_Z(\text{reg}) = V$ dc, column 9 of table III."
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PAGE 7

4.5.4; title; delete "Temperature coefficient of regulator voltage ( $\alpha V_Z$ )." And substitute "Temperature coefficient of regulator voltage ( $\alpha V_Z$ )."

PAGE 8

Table I, subgroup 2, reverse current, unit column: delete "A dc" and substitute " $\mu\text{A dc}$ ".

Table I, subgroup 4, small signal breakdown impedance, conditions column; delete " $I_{\text{sig}} = 10 I_Z$ " and substitute " $I_{\text{sig}} = 10$  percent  $I_{Z\text{rms}}$ ".  
Knee impedance, conditions column; delete " $I_{\text{sig}} = 10 I_Z$ " and substitute " $I_{\text{sig}} = 10$  percent  $I_{Z\text{k rms}}$ ".

Table I, subgroup 7, voltage regulation, conditions column; delete " $V_Z(\text{reg})$ "; in symbol column; add " $V_Z(\text{reg})$ ".

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Table II, step 1, unit column; delete "A dc" and substitute " $\mu\text{A dc}$ ".

Table II, step 2, symbol column: Delete " $I_{R1}$ " and substitute " $I_{R3}$ ". Unit column; delete "A dc" and substitute " $\mu\text{A dc}$ ".

Table II, step 4, conditions column; delete " $I_{\text{sig}} = 10 I_Z$ " and substitute " $I_{\text{sig}} = 10$  percent  $I_{Z\text{rms}}$ ".

Table II, step 4, conditions column; delete " $I_{\text{sig}} = 10 I_Z$ " and substitute " $I_{\text{sig}} = 10$  percent  $I_{Z\text{k rms}}$ ".

Table II, step 6, symbol column; delete " $V_F$ " and substitute " $\Delta V_F$ ".

PAGES 10 AND 11

Table III, columns 12 and 13: Delete "A" (four places) and substitute " $\mu\text{A}$ " (four places).

Table III, column 13: Delete " $I_{R1}$ " (two places) and substitute " $I_{R3}$ " (two places).

Table III, column 14: Delete " $V_Z$ " (two places) and substitute " $\alpha V_Z$ " (two places).

Table III, note 1; delete "B and RB" and substitute "all".

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Custodians:

Army - CR  
Navy - EC  
Air Force - 17  
NASA - NA

Preparing activity:  
DLA - CC

(Project 5961-1983)

Review activities:

Army - AR, MI, SM  
Navy - AS, CG, MC  
Air Force - 13, 15, 19, 85, 99

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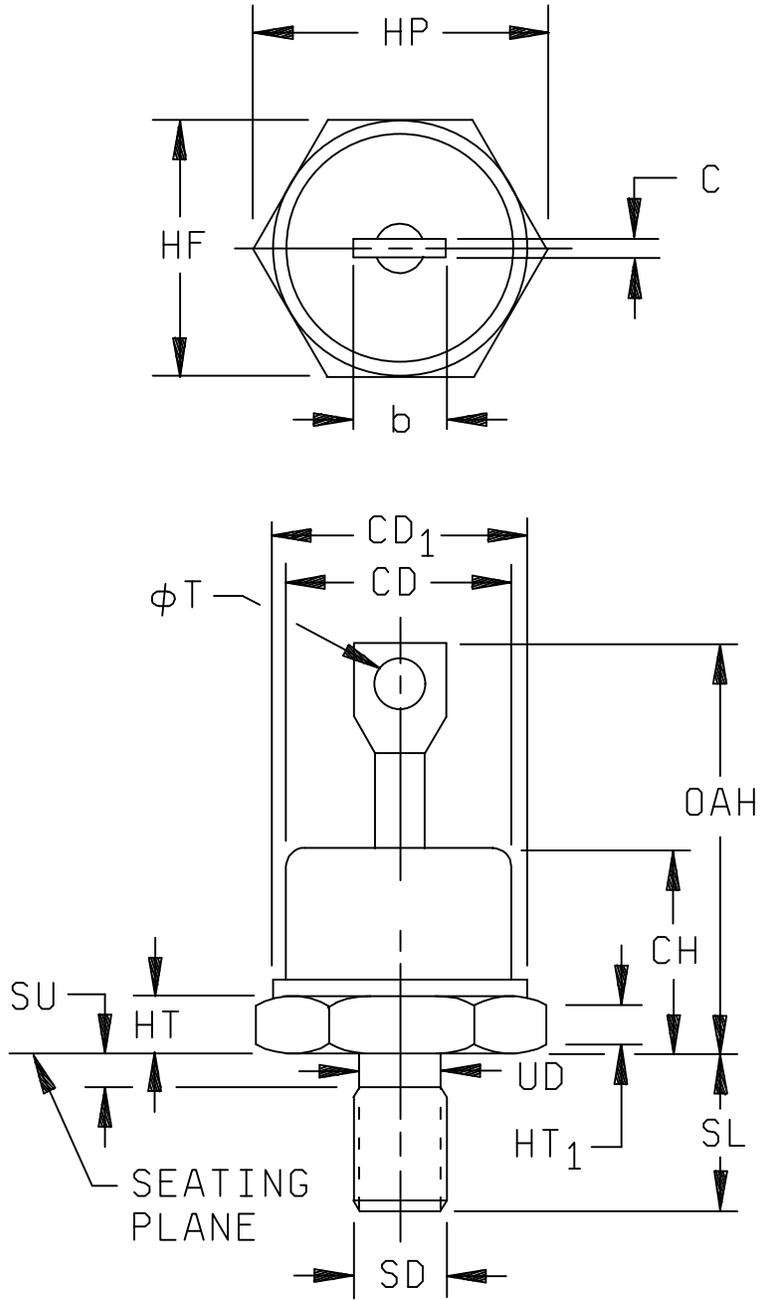


FIGURE 1. Physical dimensions.

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dated 20 June 1997

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Symbol	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
b	---	.250	---	6.35	3
C	.012	.065	0.30	1.65	
CD	.255	.424	.648	10.77	
CD <sub>1</sub>	---	.505	---	12.83	
CH	.300	.405	7.62	10.29	
HF	.423	.438	10.74	11.13	
HP	---	.505	---	12.83	
HT	.075	.175	1.90	4.44	
HT <sub>1</sub>	.060	.175	1.52	4.44	2
OAH	.600	.800	15.24	20.32	
SD	---	---	---	---	5
SL	.422	.453	10.72	11.51	
SU	---	.078	---	1.98	4
UD	.163	.189	4.14	4.80	1
Øt	.060	.095	1.52	2.41	

NOTES:

1. Complete threads to extend to within 2.5 threads of seating plane.
2. Chamfer on undercut on one or both ends of hexagonal base is optional.
3. Angular orientation of this terminal is undefined.
4. Length of incomplete or undercut threads of UD.
5. 10-32 UNF-2A maximum pitch diameter of plated threads shall be basic pitch diameter .1697 (4.310 mm) reference. (Screw thread standards for Federal Services 1957) Handbook H28 P1.
6. Metric equivalents are given for general information only.
7. Dimensions are in inches.

FIGURE 1. Physical dimensions - Continued.

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dated 20 June 1997