

The documentation and process conversion measures necessary to comply with this document shall be completed by 27 January 2014.

MIL-PRF-19500/670A  
 30 JULY 2013  
 SUPERSEDING  
 MIL-PRF-19500/670  
 19 June 2000

PERFORMANCE SPECIFICATION

SEMICONDUCTOR DEVICE, DIODE, SILICON,  
 BARRIER RECTIFIER, SCHOTTKY,  
 TYPES 1N6826, 1N6826US, 1N6831 and 1N6831US  
 JAN, JANTX, JANTXV, JANS, 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 silicon, Schottky barrier rectifier diodes. Four levels of product assurance are provided for each encapsulated device type as specified in [MIL-PRF-19500](#). Two level of product assurance is provided for each unencapsulated device type as specified in [MIL-PRF-19500](#).

1.2 Physical dimensions. The device package styles are as follows: axial lead in accordance with [figure 1](#) for device types 1N6826 and 1N6831, surface mount in accordance with [figure 2](#) for device types 1N6826US and 1N6831US, and unencapsulated die in accordance with [figure 3](#) for device type JANHC and JANKC.

1.3 Maximum ratings.

Types	$V_{RWM}$	$I_{O1}$ (3)	$I_{FSM}$	$T_J$ and $T_{STG}$
	V (pk)	A dc	A (pk)	°C
1N6826, 1N6826US	100 (1)	3.0	60	-65°C to 200°C
1N6831, 1N6831US	200 (2)	3.0	60	-65°C to 200°C

- (1) Derate linearly at 60 mA/°C above  $T_L$  or  $T_{EC} = +150^\circ\text{C}$  where  $T_L$  is at  $L = .375$  inch (9.52 mm).
- (2) Derate linearly at 60 mA/°C above  $T_L$  or  $T_{EC} = +150^\circ\text{C}$  where  $T_L$  is at  $L = .375$  inch (9.52 mm).
- (3) Derate linearly at 43 mA/°C above  $T_L$  or  $T_{EC} = +130^\circ\text{C}$  where  $T_L$  is at  $L = .375$  inch (9.52 mm).

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](mailto: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>.

1.4 Primary electrical characteristics. Unless otherwise specified, at  $T_A = +25^\circ\text{C}$ .

Types	Max $V_{FM1}$ $I_{FM} = 1.0\text{ A}$	Max $V_{FM2}$ $I_{FM} = 3.0\text{ A}$	Max $I_{RM}$ @ $V_{RWM}$ pulsed method (see 4.5.1)		Max $C_T$ $V_R = 5\text{ V dc}$	Max $R_{\theta JL}$ or $R_{\theta JEC}$ .375 inch (9.52 mm) lead length or end cap	Max $Z_{\theta JX}$
			$T_J = +25^\circ\text{C}$ $I_{RM1}$	$T_J = +125^\circ\text{C}$ $I_{RM2}$			
	<u>V (pk)</u>	<u>V (pk)</u>	<u><math>\mu\text{A}</math></u>	<u>mA</u>	<u>pF</u>	<u><math>^\circ\text{C/W}</math></u>	<u><math>^\circ\text{C/W}</math></u>
1N6826	0.76	0.84	5.0	0.25	100	30	3.0
1N6826US	0.76	0.84	5.0	0.25	100	10	3.0
1N6831	0.83	0.92	3.0	0.20	60	30	3.0
1N6831US	0.83	0.92	3.0	0.20	60	10	3.0

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 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, 4, or 5 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 contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

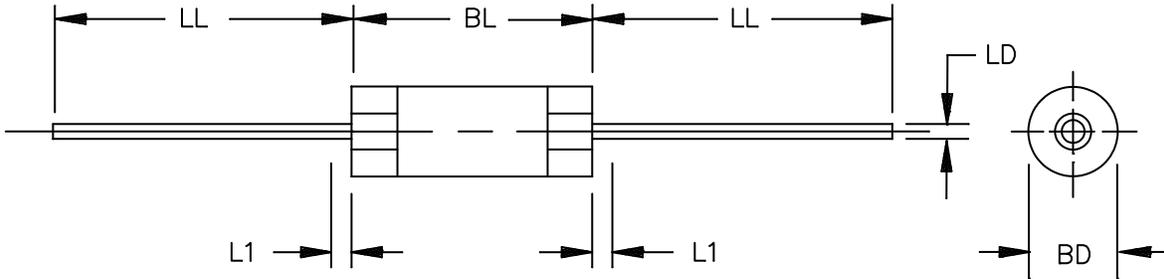
[MIL-PRF-19500](#) – Semiconductor Devices, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

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

(Copies of these documents are available online at <http://quicksearch.dla.mil> or <https://assist.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

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 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.

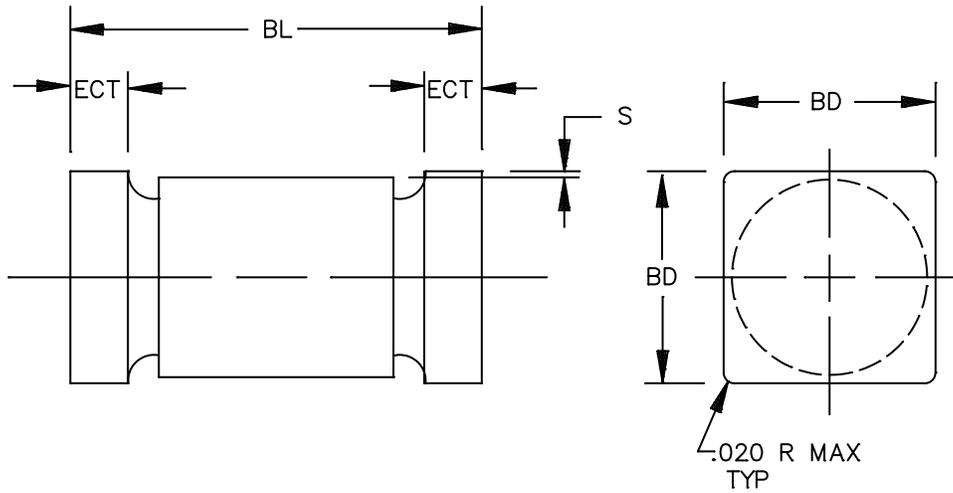


Symbol	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
LD	.036	.042	0.91	1.07	
BD	.115	.145	2.92	3.68	3
BL	.130	.195	3.30	4.95	
LL	.900	1.300	22.86	33.02	
L1		.030		0.76	4

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Symbol BD shall be measured at the largest diameter.
4. Lead diameter is not controlled in this zone to allow for flash, lead finish build-up, and mirror irregularities other than heat slugs.

FIGURE 1. Physical dimensions of 1N6826 and 1N6831.



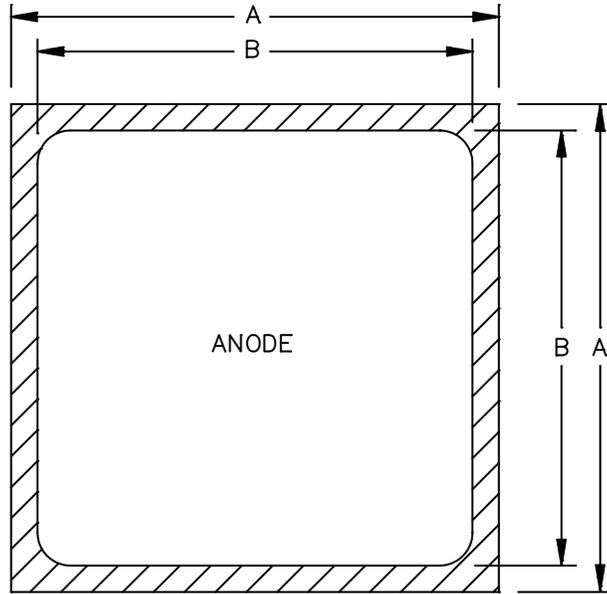
Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	.200	.225	5.08	5.72
BD	.137	.148	3.48	3.76
ECT	.019	.028	0.48	0.71
S		.003		0.08

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

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FIGURE 2. Physical dimensions of surface mount family, 1N6826US and 1N6831US.



BACKSIDE IS CATHODE

(A-version)

Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.058	.062	1.47	1.75
B	.052	.055	1.32	1.40

Design data	
Metallization:	
Top (anode):	AL
Back (cathode):	Ag
AL thickness	25,000 Å minimum
Ag thickness	30,000 Å minimum
Chip thickness	.011 ±.001 inch (0.279 ±0.025 mm)

FIGURE 3. JANC die dimensions.

### 3. REQUIREMENTS

3.1 General. The individual item requirements shall be as specified in [MIL-PRF-19500](#) and as modified herein.

3.2 Qualification. Devices furnished under this specification shall be products that are manufactured by a manufacturer authorized by the qualifying activity for listing on the applicable qualified manufacturer's list (QML) before contract award (see [4.2](#) and [6.3](#)).

3.3 Abbreviations, symbols, and definitions. Abbreviations, symbols, and definitions used herein shall be as specified in [MIL-PRF-19500](#).

3.4 Interface requirements and physical dimensions. The interface requirements and physical dimensions for the purpose of interchangeability shall be as specified in [MIL-PRF-19500](#) and [figures 1, 2, and 3](#) herein.

3.4.1 Diode construction. These devices shall be constructed utilizing non-cavity double plug construction with high temperature metallurgical bonding between both sides of the silicon die and terminal pins (see [MIL-PRF-19500](#)). Metallurgical bond shall be in accordance with the requirements of category II in [MIL-PRF-19500](#). Surface mount devices shall be structurally identical to the non-surface mount devices except for lead terminations.

3.4.2 Lead finish. Unless otherwise specified, the lead finish shall be solderable in accordance with [MIL-STD-750](#), [MIL-PRF-19500](#), and herein. Where a choice of lead finish is desired, it shall be specified in the acquisition document (see [6.2](#)).

3.4.3 Polarity. The identification of terminals of the device package shall be as shown on [figure 1](#). Terminal 1 shall be connected to the cathode and terminal 2 shall be connected to the anode.

3.5 Electrical performance characteristics. Unless otherwise specified herein, the electrical performance characteristics are as specified in [1.3](#) and [1.4](#).

3.6 Electrical test requirements. The electrical test requirements shall be in accordance with group A as specified herein.

3.7 Marking. Devices shall be marked as specified in [MIL-PRF-19500](#).

3.7.1 Marking for surface mount ( US ) devices. Surface mount (US) suffix parts are to be marked with the polarity identification. Initial container package marking will be in accordance with [MIL-PRF-19500](#).

3.8 Workmanship. Semiconductor devices shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

### 4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. Qualification inspection (see [4.2](#)).
- b. Screening (see [4.3](#)).
- c. Conformance inspection (see [4.4](#) and [tables I and II](#)).

4.2 Qualification inspection. Qualification inspection shall be in accordance with MIL-PRF-19500 and as specified herein.

4.2.1 Construction verification. Cross sectional photos from three devices shall be submitted in the qualification report.

4.2.2 JANHC and JANKC die devices. Qualification for these devices shall be in accordance with MIL-PRF-19500. This testing may be performed on a TO-5 hermetic metal package in lieu of the axial leaded package.

4.2.3 Group E qualification. Group E inspection shall be performed for qualification or re-qualification only. In case qualification was awarded to a prior revision of the specification sheet that did not request the performance of table II tests, the tests specified in table II herein that were not performed in the prior revision shall be performed on the first inspection lot of this revision to maintain qualification.

4.3 Screening of packaged devices (quality levels JAN, JANTX, JANTXV, and JANS only). Screening of packaged devices shall be in accordance with table E-IV of MIL-PRF-19500 and as specified herein. The following measurements shall be made in accordance with table I herein. Devices that exceed the limits of table I herein shall not be acceptable.

Screen (see table E-IV of MIL-PRF-19500)	Measurement		
	JANS level	JANTX and JANTXV levels	JAN level
3a	Temperature cycling	Temperature cycling	Temperature cycling in accordance with JANTX level MIL-PRF-19500
3c (1)	Thermal impedance (see 4.5.3)	Thermal impedance (see 4.5.3)	Thermal impedance (see 4.5.3)
9	$I_{RM1}$ and $V_{FM2}$	Not applicable	Not applicable
10 (2)	1N6826: $T_A = +150^\circ\text{C}$ ; $V_R = 80 \text{ V(dc)}$ ; 1N6831: $T_A = +150^\circ\text{C}$ ; $V_R = 160 \text{ V(dc)}$	1N6826: $T_A = +150^\circ\text{C}$ ; $V_R = 80 \text{ V(dc)}$ ; 1N6831: $T_A = +150^\circ\text{C}$ ; $V_R = 160 \text{ V(dc)}$	Not applicable
11	$\Delta I_{RM1} \leq 100$ percent of initial reading or 70 percent $I_{RM1}$ whichever is greater. $\Delta V_{FM2} \leq 50 \text{ mV dc}$ .	$I_{RM1}$ and $V_{FM2}$	Not applicable
12	See 4.3.2	See 4.3.2, $t = 48$ hours	Not applicable
13	Subgroup 2 and 3 of table I herein; $\Delta I_{RM1} \leq 100$ percent of initial reading or 70 percent $I_{RM1}$ whichever is greater; $\Delta V_{FM2} \leq 50 \text{ mV dc}$ .	Subgroup 2 of table I herein; $\Delta I_{RM1} \leq 100$ percent of initial reading or 70 percent $I_{RM1}$ whichever is greater; $\Delta V_{FM2} \leq 50 \text{ mV dc}$ .	Not applicable

- (1) Thermal impedance shall be performed any time after sealing provided temperature cycling (screen 3a) is performed in accordance with MIL-PRF-19500, screen 3 prior to this thermal impedance. Quality levels JANTX and JANTXV do not need to be repeated in screening requirements.
- (2) Junction temperature ( $T_J$ ) is not to exceed  $+200^\circ\text{C}$  with  $V_{RWM}$ .  $T_J$  is affected by the device mounting thermal resistance when parasitic power is generated by the temperature dependent leakage current. Until this leakage becomes significant near thermal runaway,  $T_J$  remains approximately equal to  $T_A$  or  $T_L$  for  $I_O = 0$ .

4.3.1 Screening of unencapsulated die (JANHC or JANKC). Screening of JANHC or JANKC unencapsulated die shall be in accordance with appendix G of MIL-PRF-19500 and as specified herein. The burn-in duration for JANHC level shall follow the JANTX requirements of table E-IV of MIL-PRF-19500.

4.3.2 Power burn-in conditions. The power burn-in conditions shall be as follows:  $T_A$  = room ambient as defined in the general requirements of MIL-STD-750. Devices may be mounted using any convenient method including the temporary attachment of leads on US suffix devices, provided that the parts are burned-in at  $T_J = +150^\circ\text{C}$  minimum.

4.4 Conformance inspection. Conformance inspection shall be in accordance with MIL-PRF-19500 and as specified herein.

4.4.1 Group A inspection. Group A inspection shall be conducted in accordance with table E-V of MIL-PRF-19500 and table I herein.

4.4.2 Group B inspection. Group B inspection shall be conducted in accordance with the conditions specified for subgroup testing in table E-VIA (JANS) and table E-VIB (JAN, JANTX, and JANTXV) of MIL-PRF-19500 and paragraphs 4.4.2.1 and 4.4.2.2 herein. Electrical measurements (end-points) shall be in accordance with table I, group A, subgroup 2 herein.

4.4.2.1 Quality level JANS (table E-VIA of MIL-PRF-19500).

<u>Subgroup</u>	<u>Method</u>	<u>Condition</u>
B3	4066	$I_{FSM} = 60 \text{ A (pk)}$ , condition A 2, $I_O = 3 \text{ A dc}$ ; $T_A$ = room ambient as defined in the general requirements of MIL-STD-750 (see 4.5); 5 surges of 8.3 ms each at 1 minute intervals.
B4	1036	$I_F = 3.0 \text{ A}$ ; $T_A$ = room ambient as defined in the general requirements of MIL-STD-750; $t_{on} = t_{off} = 3 \text{ minutes}$ minimum for 2,000 cycles.
B5	1038	$I_F = 3.0 \text{ (min)}$ with $I_F$ adjusted as required to achieve an average lot $T_J = +200^\circ\text{C} +0, -15^\circ\text{C}$ . $T_A$ can be adjusted to achieve $T_J = +200^\circ\text{C}$ . $f = 50 -60 \text{ Hz}$ , at $V_{RWM}$ (see 1.3).
B6	3101	$R_{\theta JL} = 30^\circ\text{C/W}$ ; $L = .375 \text{ inch (9.52 mm)}$ lead length (non-surface mount). $R_{\theta EC} = 10^\circ\text{C/W}$ (surface mount).

4.4.2.2 Quality levels JAN, JANTX and JANTXV (table E-VIB of MIL-PRF-19500).

<u>Subgroup</u>	<u>Method</u>	<u>Condition</u>
B2	4066	$I_{FSM} = 60 \text{ A(pk)}$ , condition A 2, $I_O = 3.0 \text{ A}$ ; $T_A$ = room ambient as defined in the general requirements of MIL-STD-750 (see 4.5); 5 surges of 8.3 ms each at 1 minute intervals.
B3	1027	$I_O = 3.0 \text{ A}$ ; $T_A$ = room ambient as defined in the general requirements of MIL-STD-750 (see 4.5); $f = 50-60 \text{ Hz}$ , at $V_{RWM}$ (see 1.3); $T_L \leq +55^\circ\text{C}$ , lead length = .375 inch (9.52 mm).

4.4.3 Group C inspection. Group C inspection shall be conducted in accordance with the conditions specified for subgroup testing in table E-VII of MIL-PRF-19500, and as follows. Electrical measurements (end-points) shall be in accordance with table I, group A, subgroup 2 herein.

<u>Subgroup</u>	<u>Method</u>	<u>Condition</u>
C2	2036	Axial devices only, both tension and lead fatigue shall be evaluated. The following shall apply: Test condition A; weight = 20 pounds (9.1 kg); t = 15 s. Test condition E; weight = 1 pound (0.45 Kg).
C2	2038	US devices only, any test condition. If condition B is used, the weight shall be 20 pounds (9.1 kg).
C6	1026	$I_O = 3.0$ A; $T_A$ = room ambient as defined in the general requirements of MIL-STD-750 (see 4.5); $f = 50$ -60 Hz, at $V_{RWM}$ (see 1.3). $T_L \leq +55^\circ\text{C}$ , lead length = .375 inch (9.52 mm).
C6	1038	JANS only; test condition A, 1000 hours, $T_J = T_C = +150^\circ\text{C}$ ,

4.4.4 Group E inspection. Group E inspection shall be conducted in accordance with the conditions specified for subgroup testing in appendix E, table E-IX of MIL-PRF-19500 and as specified in table II herein. Electrical measurements (end-points) shall be in accordance with table I, subgroup 2 herein.

4.5 Methods of inspection. Methods of inspection shall be as specified in the appropriate tables and as follows.

4.5.1 Pulse response measurements. The conditions for the pulse response measurement shall be as specified in section 4 of MIL-STD-750.

4.5.2 Steady-state operation life. This test shall be conducted with a half-sine wave of the specified peak voltage impressed across the diode in the reverse direction followed by a half-sine waveform of the specified average rectified current. The forward conduction angle of the rectified current shall not be greater than  $180^\circ$  nor less than  $150^\circ$ .

4.5.3 Thermal impedance.

4.5.3.1 Conformance inspection. Thermal impedance  $Z_{\theta JX}$  measurements shall be performed in accordance with MIL-STD-750, method 3101 to identify and remove atypical devices. Read and record data ( $Z_{\theta JX}$ ) shall be supplied to the qualifying activity on one lot (random sample of 500 devices minimum) prior to shipment. Twenty-two samples shall be serialized and provided to the qualifying activity for test correlation. The maximum upper control limit for  $Z_{\theta JX}$  in screening (table E-IV of MIL-PRF-19500) shall be derived by each vendor by means of statistical techniques. When three successive sealing lots have exhibited control, the data from these three lots will be used to establish a fixed screening limit, (not to exceed the group A, subgroup 2 limit). Once a fixed limit has been established, monitor all future sealing lots using a three-piece sample from each production lot to be plotted on the applicable X, R chart.

4.5.3.2 Initial qualification and requalification. Read and record data ( $Z_{\theta JX}$ ) shall be supplied to the qualifying activity on one lot (random sample of 500 devices minimum) prior to shipment. Twenty-two samples shall be serialized and provided to the qualifying activity for test correlation.

TABLE I. Group A inspection.

Inspection <u>1/</u>	MIL-STD-750		Symbol	Limit		Unit
	Method	Conditions		Max	Min	
<u>Subgroup 1</u>						
Visual and mechanical examination	2071					
<u>Subgroup 2</u>						
Thermal impedance	3101	See 4.5.3	$Z_{\theta JX}$		3.0	°C/W
Forward voltage	4011	$I_{FM} = 1.0$ A (pk) pulsed (see 4.5.1)	$V_{FM1}$			
1N6826, 1N6826US					0.76	V dc
1N6831, 1N6831US					0.83	V dc
Forward voltage	4011	$I_{FM} = 3.0$ A (pk) pulsed (see 4.5.1)	$V_{FM2}$			
1N6826, 1N6826US					0.84	V dc
1N6831, 1N6831US					0.92	V dc
Reverse current leakage	4016	Pulse method (see 4.5.1)	$I_{RM1}$			
1N6826, 1N6826US		$V_{RM} = 100$ V (pk)			5.0	μA
1N6831, 1N6831US		$V_{RM} = 200$ V (pk)			3.0	μA
<u>Subgroup 3</u>						
High temperature operation:		$T_A = +125^\circ\text{C}$				
Reverse current leakage	4016	Pulse method (see 4.5.1)				
1N6826, 1N6826US		$V_{RM} = 100$ V (pk)	$I_{RM2}$		0.25	mA dc
1N6831, 1N6831US		$V_{RM} = 200$ V (pk)			0.20	mA dc
Forward voltage	4011	Pulse method (see 4.5.1) $I_F = 3.0$ A (pk)	$V_{FM3}$			
1N6826, 1N6826US					0.68	V dc
1N6831, 1N6831US					0.76	V dc
Low temperature operation:		$T_A = -55^\circ\text{C}$				
Reverse current leakage	4016	Pulse method (see 4.5.1)	$I_{RM3}$			
1N6826, 1N6826US		$V_{RM} = 100$ V (pk)			0.1	mA dc
1N6831, 1N6831US		$V_{RM} = 200$ V (pk)			0.1	mA dc
Forward voltage	4011	Pulse method (see 4.5.1) $I_F = 3.0$ A (pk)	$V_{FM4}$			
1N6826, 1N6826US					0.98	V dc
1N6831, 1N6831US					1.06	V dc

See footnote at end of table.

TABLE I. Group A inspection – Continued.

Inspection <sup>1/</sup>	MIL-STD-750		Symbol	Limit		Unit
	Method	Conditions		Max	Min	
<u>Subgroup 4</u> Capacitance 1N6826, 1N6826US 1N6831, 1N6831US	4001	$V_R = 5 \text{ V dc}$ , $.01 \leq f \leq 1 \text{ MHz}$ , $V_{SIG} = 50 \text{ mV p-p}$	$C_T$		100 60	pF pF

<sup>1/</sup> For sampling plan, see [MIL-PRF-19500](#).

TABLE II. Group E inspection (all quality levels) for qualification and requalification only.

Inspection	MIL-STD-750		Qualification sample plan
	Method	Conditions	
<u>Subgroup 1</u> Temperature cycling (air to air)	1051		45 devices c = 0
Hermetic seal	1071		
Electrical measurements		See <a href="#">table I</a> , subgroup 2.	
<u>Subgroup 2</u> Burn-in (for diodes, rectifiers, and zeners) (DC HTRB)	1038	Test condition A; t = 1,000 hours, See <a href="#">4.3</a> , screen 10.	45 devices c = 0
Electrical measurements		See <a href="#">table I</a> , subgroup 2.	
<u>Subgroup 3</u> Not applicable			
<u>Subgroup 4</u> Thermal resistance or thermal impedance	4081 or 3101	$R_{\theta JL} = 30^\circ\text{C/W}$ maximum at .375 inch (9.52 mm) lead length; $R_{\theta EC} = 10^\circ\text{C/W}$ maximum; method 3101 in accordance with <a href="#">4.5.3</a> except $I_H = 3 \text{ A}$ and $T_H = 20 \text{ s}$ (minimum); $T_A = +25^\circ\text{C}$ .	Sample size N/A
<u>Subgroup 5</u> Not applicable			
<u>Subgroup 6</u> Electrostatic discharge sensitivity	1020	See <a href="#">MIL-PRF-19500</a> .	

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory. The notes specified in MIL-PRF-19500 are applicable to this specification.)

6.1 Intended use. Semiconductors conforming to this specification are intended for original equipment design applications and logistic support of existing equipment.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Lead finish (see 3.4.2).
- c. Packaging requirements (see 5.1).
- d. The complete Part or Identifying Number (PIN), see title and section 1.

6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Manufacturers List (QML 19500) whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from DLA Land and Maritime, ATTN: VQE, P.O. Box 3990, Columbus, OH 43218-3990 or e-mail [vqe.chief@dla.mil](mailto:vqe.chief@dla.mil). An online listing of products qualified to this specification may be found in the Qualified Products Database (QPD) at <https://assist.dla.mil>.

6.4 Suppliers of JANC die. The qualified JANHC and JANKC suppliers with the applicable letter version (example JANHCA1N6826) will be identified on the QML.

JANC ordering information	
Device type	Manufacturer
	13409
1N6826	JANHCA1N6826
	JANKCA1N6826
1N6831	JANHCA1N683
	JANKCA1N6831

6.5 Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:  
Army – CR  
Navy – EC  
Air Force – 85  
NASA – NA  
DLA – CC

Preparing activity:  
DLA – CC  
  
(Project 5961-2013-035)

Review activities:  
Air Force – 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.