

The documentation and process conversion measures necessary to comply with this revision shall be completed by 27 September 1997.

INCH POUND

MIL-PRF-19500/553A  
27 June 1997  
SUPERSEDING  
MIL-S-19500/553  
28 May 1982

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, DIODE, SILICON,  
SCHOTTKY BARRIER, FAST RECOVERY,  
TYPE 1N6391, JAN, JANTX, JANTXV, JANS, AND JANHC

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

1. SCOPE

1.1 Scope. This specification covers the performance requirements for a silicon, fast recovery, schottky barrier semiconductor diode, intended for use as a power rectifier in rectifier recovery circuits, or as a flyback diode in power switching applications. Four levels of product assurance are provided for each device type as specified in MIL-PRF-19500. One level of product assurance is provided for each unencapsulated device type.

1.2 Physical dimensions. See figure 1 (D0-4) and figures 2 and 3 (JANHC die).

1.3 Maximum ratings.

Type	$V_{RRM}$ and $V_{RWM}$ 1/	$V_{RSM}$	$V_R$ 1/	$I_{FM}$ 2/	$I_O$ 3/	$I_{FSM}$	$T_{op}$ $T_{STG}$
				$T_C = +125^\circ C$	$T_C = 125^\circ C$		
	<u>V(pk)</u>	<u>V(pk)</u>	<u>V dc</u>	<u>A dc</u>	<u>A dc</u>	<u>A (pk)</u>	<u>°C</u>
1N6391	45	54	45	25	22.5	600	-55 to +175

1/ Full rated  $V_{RRM}$  and  $V_{RWM}$  is applicable over the range of  $T_C = -55^\circ C$  to  $+139^\circ C$  for  $I_{FM} = 0$ . Full rated  $V_R$  is applicable over the temperature range of  $T_C = -55$  to  $+139^\circ C$ . When  $V_R = 45$  V dc and  $T_C = +139^\circ C$ , then  $T_J = 175^\circ C$ .

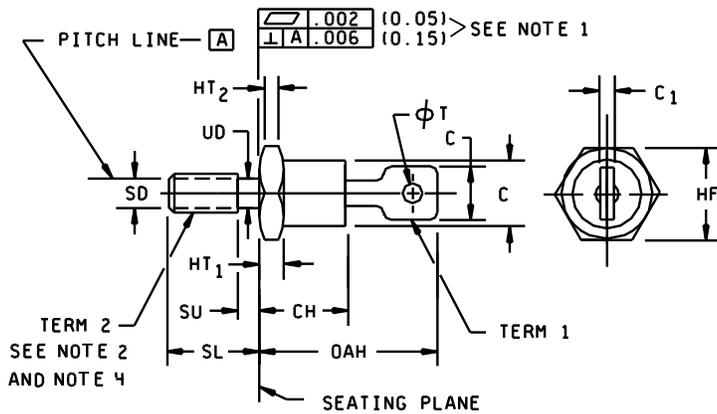
2/ Average current with a 50% duty cycle square wave including reverse amplitude equal to the magnitude of full rated  $V_{RWM}$ . Derate linearly at 0.64 A dc/°C for  $T_C > +125^\circ C$ .

3/ Average current with an applied sine wave peak value equal to the magnitude of full rated  $V_{RWM}$ . Derate linearly at 0.58 A dc/°C for  $T_C > +125^\circ C$ .

1.4 Primary electrical characteristics at  $T_C = 25^\circ C$ , unless otherwise noted.

Type	Max $V_{FM1}$ $I_{FM} = 50$ A (pk)	Max $V_{FM2}$ $I_{FM} = 5$ A (pk)	Max $I_{RM}$ $V_{RM} = 45$ V (pk)		Max $C_T$ $V_R = 5$ V dc	Max $R_{\theta JC}$
			$T_J = +175^\circ C$	$T_J = 25^\circ C$		
	<u>V (pk)</u>	<u>V (pk)</u>	<u>mA (pk)</u>	<u>mA (pk)</u>	<u>pF</u>	<u>°C/W</u>
1N6391	0.68	0.50	400	15	2000	2.0

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Defense Supply Center Columbus, ATTN: DSCC-VAT, 3990 East Broad St., Columbus, OH 43216-5000, by using the addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

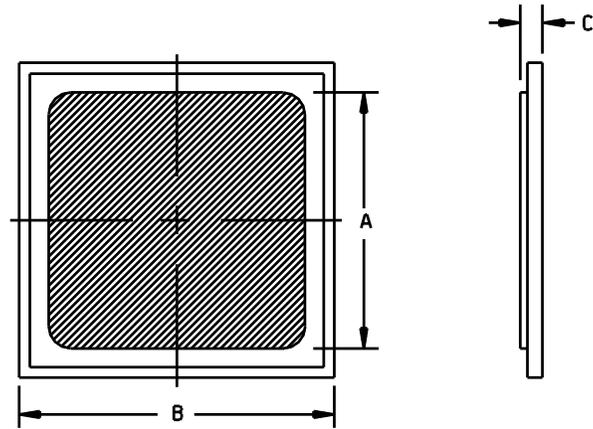


Ltr	Dimensions				Note
	Inches		Millimeters		
	Min	Max	Min	Max	
C		.250		6.35	6
C <sub>1</sub>	.018	.065	0.46	1.65	
CD	.265	.424	6.74	10.76	
HF	.424	.437	10.77	11.10	
HT <sub>1</sub>	.075	.175	1.91	4.44	
HT <sub>2</sub>	.060		1.53		5
CH	.300	.405	7.62	10.28	
OAH	.600	.800	15.42	20.32	
UD	.163	.189	4.14	4.80	
SL	.422	.453	10.72	11.50	
SU		.078		1.98	3
φT	.060	.103	1.52	2.62	

NOTES:

1. Dimensions are in inches, metric equivalents are given for general information only.
2. Units must not be damaged by torque of 15 inch-pound applied to .10-32 UNF-2B nut assembled on thread.
3. Length of incomplete or undercut threads of SU.
4. Maximum pitch diameter of plated threads shall be basic pitch diameter .1697 inch (4.31 mm) reference (FED-STD-H28, Screw-Thread Standards for Federal Services).
5. A chamfer or undercut on one or both ends of the hex portion is optional; minimum base diameter at seating plane .424 inch (10.77 mm).
6. The angular orientation and peripheral configuration of terminal 1 is undefined, however, the major surfaces over dimensions C and C<sub>1</sub> shall be flat.

FIGURE 1. Physical dimensions (similar to Do-4).



A Version

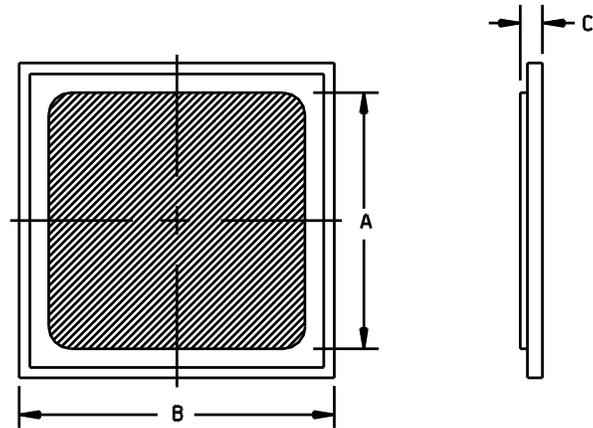
Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.167	.177	.53	.63
B	.175	.185	.33	.43
C	.012	.013	.305	.330

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The metallization characteristics of the die are:

JANHC version:	Anode(front)	Cathode(back)
A	Ag	Ag

FIGURE 2. JANHCA die dimensions (A version).



B, C, and D Versions

Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.151	.157	3.84	3.99
B	.148	.152	3.76	3.86
C	.008	.011	.20	.28

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The metallization characteristics of the die are:

JANHCA version:	Anode(front)	Cathode(back)
B	Al	Au
C	Al	Ag
D	Ag	Ag

FIGURE 3. JANHCA die dimensions (B, C, and D versions).

## 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 documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 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 listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

### SPECIFICATION

#### DEPARTMENT OF DEFENSE

MIL-PRF-19500 - Semiconductor Devices, General Specification for.

### STANDARD

#### MILITARY

MIL-STD-750 - Test Methods for Semiconductor Devices.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated specifications or specification sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

## 3. REQUIREMENTS

3.1 Associated specification. The individual item requirements shall be in accordance with MIL-PRF-19500 and as specified herein.

3.2 Abbreviations, symbols, and definitions. Abbreviations, symbols, and definitions used herein shall be as defined in MIL-PRF-19500.

3.3 Interface requirements and physical dimensions. The Interface requirements and physical dimensions shall be as specified in MIL-PRF-19500, and figures 1 (D0-4 ), 2, and 3 (die) herein.

3.3.1 Terminal finish. Terminal finish shall be solderable as defined in MIL-PRF-19500, MIL-STD-750, and herein.

3.3.2 Polarity. Devices shall have the cathode electrically connected to the stud.

3.4 Electrical performance characteristics. Unless otherwise specified herein, the electrical performance characteristics are as specified in paragraph 1.3, 1.4, and table I.

3.5 Electrical test requirements. The electrical test requirements shall be the subgroups specified in paragraphs 4.4.2 and 4.4.3.

3.6 Marking. Marking shall be in accordance with MIL-PRF-19500.

3.7 Qualification. Devices furnished under this specification shall be products that are authorized by the qualifying activity for listing on the applicable qualified products list before contract award (see 4.2 and 6.2).

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).

4.2 Qualification inspection. Qualification inspection shall be in accordance with MIL-PRF-19500.

4.2.1 JANHC devices. JANHC devices shall be qualified in accordance with MIL-PRF-19500.

4.3 Screening (JANTX, JANTXV, and JANS levels). Screening shall be in accordance with table 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 IV of MIL-PRF-19500)	Measurement	
	JANS	JANTX and JANTXV levels
3a	Condition C	Condition C
3b <u>2/</u>	Surge, see 4.3.2	Surge, see 4.3.2
3c <u>2/</u>	Thermal impedance, see 4.3.3	Thermal impedance, see 4.3.3
4	Not applicable	Not applicable
9 <u>3/</u>	Reverse energy test (see 4.5.2), followed by $V_{FM1}$ and $I_{RM1}$ of table I subgroup 2.	Not applicable
10	MIL-STD-750, method 1038, test condition A; t = 48 hrs.	Not applicable
11 <u>3/</u>	$V_{FM1}$ and $I_{RM1}$ of table 1, subgroup 2 $\Delta V_{FM1} = 0.05 \text{ V(pk)}$ , $\Delta I_{RM1} = \pm 100\%$ or 5 mA dc, whichever is greater.	Reverse energy test (see 4.5.2), followed by $V_{FM1}$ and $I_{RM1}$ of table I subgroup 2.
12	Burn-in per MIL-STD-750, method 1038, test condition A; see 4.3.4.	Burn-in per 4.3.4
13 <u>1/</u>	$V_{FM1}$ and $I_{RM1}$ of table 1, subgroup 2; $\Delta V_{FM1} = 0.05 \text{ V (pk)}$ , $\Delta I_{RM1} = \pm 100\%$ or 5 mA dc, whichever is greater. Scope display evaluation (see 4.5.3).	$V_{FM1}$ and $I_{RM1}$ of table 1, subgroup 2; $\Delta V_{FM1} = 0.05 \text{ V (pk)}$ , $\Delta I_{RM1} = \pm 100\%$ or 5 mA dc, whichever is greater. Scope display evaluation (see 4.5.3).

1/ All JAN level devices shall be subjected to the scope display evaluation test.

2/ Surge current shall precede thermal response. These tests shall be performed anytime after screen 3 and before screen 10.

3/  $I_{RM1}$  shall not be indicative of an open condition.

4.3.1 Screening (JANHC). Screening of JANHC die shall be in accordance with MIL-PRF-19500.

4.3.2 Surge current. Surge current shall be performed per MIL-STD-750, method 4066 with the following conditions:  $I_{FSM} = 600$  A, 6 surges,  $t_p = 8.3$  ms,  $\frac{1}{2}$  sine wave, or rectangular pulse of equivalent  $I_{RMS}$ ;  $I_O = 0$  A,  $V_{RWM} = 0$ , duty factor 1 percent minimum,  $T_A = 25^\circ$  C.

4.3.3 Thermal impedance. Thermal impedance  $Z_{\Theta JX}$  measurements shall be performed in accordance with MIL-STD-750, method 3101. 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 following conditions shall apply:

$I_H \geq$  rated  $I_O$ ,  $t_H = 150$  to 400 ms,  $I_M = 50$  mA to 250 mA,  $t_{MD} = 50$  to 300  $\mu$ s  
 The maximum limit for  $Z_{\Theta JX}$  under these test conditions is  $Z_{\Theta JX(max)} = 2^\circ$  C/W.

4.3.4 Burn-in. MIL-STD-750, method 1038, test condition A,  $T_C = 150^\circ$  C,  $V_{RM} = 36$  V (pk),  $I_O = 0$ ,  $f = 60$  Hz,  $t = 48$  hrs; Alternate test:  $V_R = 36$  V dc and  $T_C = 150^\circ$  C,  $t = 48$  hrs.

4.4 Conformance inspection. Conformance inspection shall be in accordance with MIL-PRF-19500.

4.4.1 Group A inspection. Group A inspection shall be conducted in accordance with 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 VIa (JANS) and table VIb (JAN, JANTX, and JANTXV) of MIL-PRF-19500, and as follows. Electrical measurements (end points) shall be  $V_{FM1}$  and  $I_{RM1}$  of table I, subgroup 2 herein.

4.4.2.1 Group B inspection, table VIa (JANS) of MIL-PRF-19500.

Subgroup	Method	Conditions
B3	4066	$I_{FSM} = 600$ A dc; $t_p \leq 8.3$ ms; 6 1/120 s surges; 1 surge/minute maximum; $I_O = 20$ A dc; $V_R =$ rated $V_R$ (see 1.3); $100^\circ$ C $\leq T_C \leq 125^\circ$ C.
B4	1037	2,000 cycles, 25 percent rated $I_O \leq I_O$ applied $\leq$ rated $I_O$ (see 4.5.6).
B5	1027	$I_F = 20$ A Avg at $T_C = +125^\circ$ C, for 340 hours, or as adjusted as required by the chosen $T_A$ to give an average lot $T_J = 175^\circ$ C; $f = 60$ Hz, $V_R = V_{RWM}$ (pk) (see 1.3).
B6	3101 or 4081	$R_{\Theta JC} = 2.0^\circ$ C/W; $t_H \geq 20$ seconds; heating current ( $I_H$ ) $\geq$ rated $I_O$ ; $t_{MD} \leq 300$ $\mu$ s; measurement current $50$ mA $\leq I_M \leq 250$ mA (see 4.5.4).

4.4.2.2 Group B inspection, table VIb (JAN, JANTX, and JANTXV) of MIL-PRF-19500.

Subgroup	Method	Condition
B3	1027	$T_C = 150^\circ$ C, $V_{RM} = 36$ V (pk) or $V_R = 36$ V dc.
B5	4081	See 4.5.4.
B7	4066	$I_{FSM} = 600$ A (pk); $V_{RM} = 45$ V (pk), $I_O = 22.5$ A dc; 10 surges of 8.3 ms each at 1 minute intervals; $100^\circ$ C $< T_C < 125^\circ$ C; 22 devices, $c = 0$ .

4.4.3 Group C inspection. Group C inspection shall be conducted in accordance with the conditions specified for subgroup testing in table VII of MIL-PRF-19500, and as follows. Electrical measurements (end points) shall be  $V_{FM1}$  and  $I_{RM1}$  of table I, subgroup 2 herein.

Subgroup	Method	Condition
C2	2036	Test condition A, 10 lbs, t = 15 s. Test condition F (method B), 5 pounds, t = 15 s. Test condition D1, 10 oz-in, t = 15 s. Test condition D2, 15 lb-in, t = 15 s.
C6	1026	$I_O = 22.5$ A dc, $V_{RM} = 36$ V (pk), $T_C = 125^\circ\text{C} \pm 3^\circ\text{C}$ .
C7	----	Operational power cycling (see 4.5.6), $I_O = 20$ A dc, $T_C$ (low) = $40^\circ\text{C} +0, -15^\circ\text{C}$ ; $T_C$ (high) = $115^\circ\text{C} +5, -0^\circ\text{C}$ ; 5000 cycles (may be continued from JANS group B subgroup 4); (15 devices, c = 0).

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

4.5.1 Pulse measurements. Conditions for pulse measurements shall be as specified in section 4 of MIL-STD-750.

4.5.2 Peak reverse energy test. The peak reverse energy test is to be performed as on figure 4. The Schottky rectifier under test must be capable of absorbing the reverse energy, as defined, and meet the electrical requirements of table I, subgroup 4 herein.

4.5.3 Scope display evaluation. A curve trace visual display of the reverse characteristics (voltage vs current) shall be made using a calibration of 10 mA per division vertical sensitivity, and 10 V per division horizontal sensitivity. Increase the reverse voltage until the reverse current reaches 50 mA minimum to 70 mA maximum. Observe the curve characteristics. Any device with an erratic pattern, such as double trace, other than capacitance effects, intermittence, discontinuities other than zener noise at the knee of the curve, or shorts shall be removed from the lot. Time limit for this test shall be 5 seconds minimum.

This test shall be the last test performed on the device in the 100% screening tests. The percent defective result for evaluation against the percent defective allowed (PDA) shall be determined prior to the results of this test.

4.5.4 Thermal resistance. Thermal resistance measurement shall be performed in accordance with MIL-STD-750, method 3101 or 4081. Read and record data in accordance with group E herein and shall be included in the qualification report.

$$I_H \geq \text{rated } I_O$$

$$t_H = 20 \text{ seconds minimum}$$

$$I_M = 50 \text{ mA to } 250 \text{ mA}$$

$$t_{MD} = 300 \mu\text{s maximum}$$

4.5.5 Reverse current at peak reverse voltage, alternate test. The reverse current at peak reverse voltage test requirement may be satisfied by performing the reverse energy test of 4.5.2 and measuring breakdown voltage to ensure  $V_{BR} \geq 54$  V (pk) with  $I_{RM} = 2.0$  A (pk).

4.5.6 DC intermittent operation life. A cycle shall consist of an "on" period, when forward current is applied suddenly, not gradually, to the device for the time necessary to achieve an increase (delta) case temperature of  $+85^{\circ}\text{C} +15^{\circ}\text{C}$ ,  $-5^{\circ}\text{C}$  followed by an "off" period, when the current is suddenly removed for cooling, the case through a similar delta temperature. Auxiliary (forced) cooling is permitted during the "off" period only. Forward current and/or "on" time, within specific limits, and "off" time may be adjusted to achieve the delta case temperature. Heat sinks shall only be used if and to the degree necessary to maintain test samples within the desired delta temperature tolerance. The heating time shall be such that  $30\text{ s} \leq t_{\text{heating}} \leq 180\text{ s}$ . The forward current may be steady-state dc, full-wave rectified dc, or the equivalent half-sine wave dc, of the specified value. The test duration shall be the specified number of cycles. Within the time interval of 50 cycles before and 500 cycles after the termination of the test, the sample units shall be removed from the specified test conditions and allowed to reach room ambient conditions. Specified end-point measurements for qualification and quality conformance inspections shall be completed within 96 hours after removal of sample units from the specified test conditions. Additional readings may be taken at the discretion of the manufacturer.

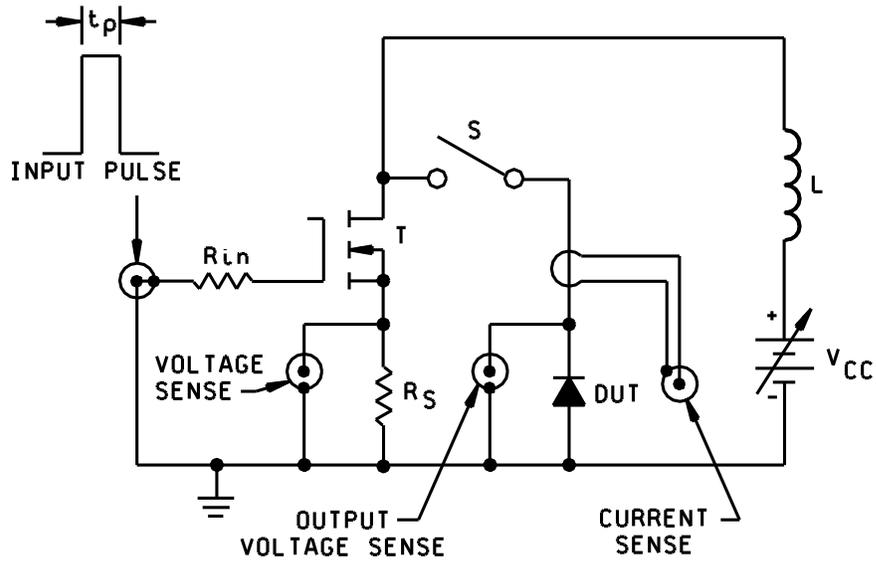
4.5.7 Inspection conditions. Unless otherwise specified in MIL-PRF-19500 or herein, all inspections shall be conducted at a case temperature ( $T_C$ ) of  $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ .

## MIL-PRF-19500/553A

TABLE I. Group A inspection.

Inspection 1/	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
<u>Subgroup 1</u>						
Visual and mechanical inspection	2071					
<u>Subgroup 2</u>						
Thermal impedance	3101	See 4.3.3	$Z_{\Theta JX}$		2.0	° C/W
Forward voltage	4011	$I_{FM} = 50 \text{ A (pk)}$ pulsed (see 4.5.1)	$V_{FM1}$		0.68	V (pk)
		$I_{FM} = 5 \text{ A (pk)}$ pulsed (see 4.5.1)	$V_{FM2}$		0.50	V (pk)
Reverse current	4016	Pulsed method, (see 4.5.1) $V_{RM} = 45 \text{ V (pk)}$	$I_{RM1}$		15.0	mA (pk)
<u>Subgroup 3</u>						
High temperature operation						
Reverse current leakage	4016	Pulse method, (see 4.5.1) $V_{RM} = 45 \text{ V (pk)}$  $T_J = 175^\circ \text{ C}$ $T_J = 125^\circ \text{ C}$	$I_{RM2}$		400	mA(pk)
			$I_{RM3}$		40	mA(pk)
Low temperature operation						
Reverse current leakage	4016	Pulse method, (see 4.5.1) $V_{RM} = 45 \text{ V (pk)}$	$I_{RM4}$		400	mA(pk)
Forward voltage	4011	Pulsed (see 4.5.1) $I_F = 5 \text{ A (pk)}$	$V_{FM3}$		0.60	V (pk)
<u>Subgroup 4</u>						
Reverse current leakage at peak reverse voltage	4016	Pulse method, (see 4.5.1) $V_{RSM} = 54 \text{ V (pk)}$ (alternate test see 4.5.5)	$I_{RM5}$		2.0	A(pk)
Capacitance	4001	$V_R = 5 \text{ V dc}$ ; $f = 1 \text{ MHz}$ $100 \text{ KHz} \leq f \leq 1 \text{ MHz}$	$C_T$		2000	pF
<u>Subgroup 5, 6, and 7</u>						
Not applicable						

1/ For sampling plan, see MIL-PRF-19500.



Input Pulse  
 $V_G = 10$  Volts  
 $R_G = 50$  ohms  
 P.W.  $\approx 30 \mu s$   
 Duty cycle  $\leq 1\%$

$R_{in} = 50$  ohms, 1 watt  
 $R_S = 0.1$  ohms, 1 watt  
 $V_{CC} \approx 10$  volts  
 $L = 260 \mu H$   
 $T =$  IRF130/2N6756 or equivalent

PROCEDURES:

1. With S open, adjust pulse width to test current of 2 amps across  $R_S$ .
2. Close S, verify test current with current sense.
3. Read peak output voltage (see 4.5.5)

FIGURE 4. Peak reverse energy test circuit.

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 material 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 Points' packaging activity within the Military Department or Defense Agency, or within the Military Departments' System Command. Packaging data retrieval is available from the managing Military Departments' or Defense Agencies' automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

5.2 Marking. Unless otherwise specified (see 6.2), marking shall be in accordance with MIL-STD-129.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Notes. The notes specified in MIL-PRF-19500 are applicable to this specification.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Issue of DODISS to be cited in the solicitation.
- b. Lead finish may be specified (see 3.3.1).
- c. Case outlines (see figures 1, 2, and 3).
- d. For die acquisition, the JANHC letter version shall be specified (see figures 2 and 3).
- e. Product assurance level and type designator.
- f. Packaging requirements (see 5.1).

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 Products List QPL-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 purchase orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from Defense Supply Center Columbus, DSCC-VQE Columbus, OH 43216.

6.4 Suppliers of JANHC die. The qualified JANHC suppliers with the applicable letter version (example, JANHCA1N6391) will be identified on the QPL.

JANHC ordering information		
PIN	Manufacturer	
	59377	12969
1N6391	JANHCA1N6391	JANHCB1N6391 JANHCC1N6391 JANHCD1N6391

6.5 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

MIL-PRF-19500/553A

CONCLUDING MATERIAL

Custodians:  
Air Force - 17

Review activities:  
Air Force - 13, 19, 85, 99

Preparing activity:  
DLA - CC  
(Project 5961-F125)

## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

**INSTRUCTIONS**

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

**I RECOMMEND A CHANGE:**

**1. DOCUMENT NUMBER**  
MIL-PRF-19500/553A

**2. DOCUMENT DATE**  
(YYMMDD) 97/06/27

**3. DOCUMENT TITLE** SEMICONDUCTOR DEVICE, DIODE, SILICON, SCHOTTKY BARRIER, FAST RECOVERY, TYPE 1N6391, JAN, JANTX, JANTXV, JANS, AND JANHC

**4. NATURE OF CHANGE** (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

**5. REASON FOR RECOMMENDATION****6. SUBMITTER**

a. NAME (Last, First, Middle initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)  
(1) Commercial  
(2) AUTOVON  
(If applicable)

7. DATE SUBMITTED  
(YYMMDD)

**8. PREPARING ACTIVITY**

a. NAME  
Alan Barone

b. TELEPHONE (Include Area Code)  
(1) Commercial                      (2) AUTOVON  
614-692-0510                      850-0510

c. ADDRESS (Include Zip Code)  
Defense Supply Center Columbus  
ATTN: DSCC-VAT  
Columbus, OH 43216-5000

**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:**  
Defense Quality and Standardization Office  
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