

The documentation and process conversion measures necessary to comply with this revision shall be completed by 3 October 1998

INCH-POUND

MIL-PRF-19500/577A
 3 July 1998
 SUPERSEDING
 MIL-S-19500/577
 5 April 1989

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, DIODE, SILICON, POWER RECTIFIER, FAST RECOVERY,
 HIGH VOLTAGE, TYPES 1N6528 THROUGH 1N6535
 JAN, JANTX, JANTXV, AND JANS

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 silicon, high voltage, fast recovery power rectifier diodes. Four levels of product assurance are provided for each device as specified in MIL-PRF-19500.

1.2 Physical dimensions. See figure 1 (similar to DO - 7).

1.3 Maximum ratings.

Types	V _{RWM}	I _{FSM} t _p = 8.3 ms	I _O		t _{rr}	T _J and T _{STG}	R _{θJL} L = .25
			T _A = +55°C 1/	T _A = +100°C 2/			
	V _{dc}	A (pk)	mA dc	mA dc	ns	°C	°C/W
1N6528	1,500	10	250	125	70	-65 to +200	50
1N6529	2,000	10	250	125	"	"	"
1N6530	2,500	8	100	50	"	"	"
1N6531	3,000	8	100	50	"	"	"
1N6532	4,000	4	50	25	"	"	"
1N6533	5,000	4	50	25	"	"	"
1N6534	7,500	2	25	12.5	"	"	"
1N6535	10,000	2	25	12.5	"	"	"

1/ Derate linearly for +55°C ≤ T_A ≤ +100°C. I_O at T_A = +55°C to I_O at T_A = +100°C.

2/ Derate linearly for +100°C ≤ T_A ≤ +175°C. I_O at T_A = +100°C to I_O at T_A = +0°C.

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 Street, Columbus, OH 43216-5000, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 5961

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

1.4 Primary electrical characteristics.

Types	V_{RWM}	I_O $T_A = +55^\circ\text{C}$	I_{R1} $T_A = +25^\circ\text{C}$	V_{F1} at I_O	C at $V_R = 50\text{ V}$ $F_O = 1\text{ kHz}$	Barometric pressure (reduced) t = 1 minute (minimum)
1N6528	1,500	250	0.10	3.0	4.0	8
1N6529	2,000	250	"	3.0	4.0	"
1N6530	2,500	100	"	7.0	2.0	"
1N6531	3,000	100	"	7.0	2.0	"
1N6532	4,000	50	"	9.0	1.0	"
1N6533	5,000	50	"	9.0	1.0	"
1N6534	7,500	25	"	14.0	0.5	"
1N6535	10,000	25	"	14.0	0.5	"

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 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 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

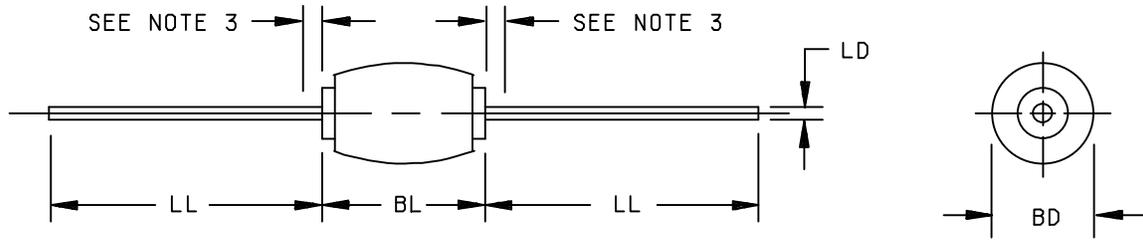
MIL-STD-750 - Test Methods for Semiconductor Devices.

(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 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 6.3).



PIN	Dimensions															
	LD				BL				BD				LL			
	Inches		mm		Inches		mm		Inches		mm		Inches		mm	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1N6528	.017	.023	0.43	0.58	0.140	0.200	3.56	5.08	.065	.125	1.65	3.18	1.0	1.3	25.4	33.0
1N6529	"	"	"	"	0.140	0.200	3.56	5.08	"	"	"	"	"	"	"	"
1N6530	"	"	"	"	0.160	0.220	4.06	5.59	"	"	"	"	"	"	"	"
1N6531	"	"	"	"	0.160	0.220	4.06	5.59	"	"	"	"	"	"	"	"
1N6532	"	"	"	"	0.180	0.240	4.57	6.10	"	"	"	"	"	"	"	"
1N6533	"	"	"	"	0.180	0.240	4.57	6.10	"	"	"	"	"	"	"	"
1N6534	"	"	"	"	0.240	0.300	6.10	7.62	"	"	"	"	"	"	"	"
1N6535	"	"	"	"	0.240	0.300	6.10	7.62	"	"	"	"	"	"	"	"

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The specified lead diameter applies in the zone between 0.05 inch (1.27 mm) from the body to the end of the lead. Outside of this zone lead shall not exceed the body diameter.

FIGURE 1. Physical dimensions.

3.2 Abbreviations, symbols, and definitions. Abbreviations, symbols, and definitions used herein shall be as specified 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 on figure 1 herein.

3.3.1 Lead finish. Lead finish shall be solderable as defined in 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 Marking. Marking shall be in accordance with MIL-PRF-19500.

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

3.6 Electrical test requirements. The electrical test requirements shall be the subgroups specified in 4.4.2 and 4.4.3 herein.

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 and table II herein.

4.3 Screening (JANS, JANTX, and JANTXV levels only). Screening shall be in accordance with MIL-PRF-19500 (Appendix E, table IV), 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 appendix E, table IV of MIL-PRF-19500)	Measurement	
	JANS level	JANTX and JANTXV levels
1/	Surge, see 4.3.2.	Surge, see 4.3.2.
9	I_{R1} and V_{F1}	Not applicable
11	I_{R1} and V_{F1} ; ΔI_{R1} and ΔV_{F1} , see table III.	I_{R1} and V_{F1}
12	See 4.3.1	See 4.3.1
13	Subgroups 2 and 3 of table I herein: ΔI_{R1} and ΔV_{F1} , see table III. I_{R1} and V_{F1}	Subgroup 2 of table I herein: ΔI_{R1} and ΔV_{F1} , see table III. I_{R1} and V_{F1}

1/ Surge screening shall be performed anytime after screen 3 and before screen 10.

4.3.1 Power burn-in conditions. Power burn-in conditions are as follows: Method 1038, condition B of MIL-STD-750, T_A = room ambient as defined in the general requirements of 4 of MIL-STD-750; f (Hz) ≥ 60 .

Types	V_{RWM} (V dc)	I_O (mA dc)
	<u>V dc</u>	
1N6528	1,000	250
1N6529	"	250
1N6530	"	100
1N6531	"	100
1N6532	"	50
1N6533	"	50
1N6534	"	25
1N6535	"	25

4.3.2 Surge screening. MIL-STD-750, method 4066; $T_A = +25^\circ\text{C}$, $V_{RWM} = 0$. Six surges. Apply $20 \times I_O$ rated at T_A of 55°C , 8.3 ms.

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 appendix E, table VIa (JANS) and table VIb (JANTX and JANTXV) of MIL-PRF-19500. Electrical measurements (end points) and delta requirements shall be in accordance with the applicable steps of table III herein.

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

Subgroup	Method	Conditions
B3	4066	I_O at $T_A = 55^\circ\text{C}$, $I_{FSM} = \text{rated } I_{FSM}$, see 1.3, one surge, 8.3 ms, $V_{RWM} = 0$ V.
B4	1037	See 4.3.1, $t_{on} = t_{off} = 3$ minutes minimum, 2,000 cycles.
B5	1027	$T_A = +150^\circ\text{C}$ minimum, $I_O = \text{rated } I_O$ (see 1.3) or adjust I_O or T_A as required to achieve $T_J = +275^\circ\text{C}$ for a minimum of 96 hours at $V_{RWM} = 1,000$ V.
B6	4081	$T_A = +25^\circ\text{C}$; $R_{\theta JL} = \text{rated } R_{\theta JL}$ (see 1.3).

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

Subgroup	Method	Conditions
B2	4066	I_O at $T_A = 55^\circ\text{C}$, $I_{FSM} = \text{rated } I_{FSM}$, see 1.3, one surge, 8.3 ms, $V_{RWM} = 0$ V.
B3	1027	$T_A = +150^\circ\text{C}$ minimum, $I_O = \text{rated } I_O$ (see 1.3) or adjust I_O or T_A as required to achieve $T_J = +275^\circ\text{C}$ for a minimum of 96 hours at $V_{RWM} = 1,000$ V.
B5	4081	$T_A = +25^\circ\text{C}$; $R_{\theta JL} = \text{rated } R_{\theta JL}$ (see 1.3).

4.4.3 Group C inspection. Group C inspection shall be conducted in accordance with the conditions specified for subgroup testing in appendix E, table VII of MIL-PRF-19500. Electrical measurements (end points) and delta requirements shall be in accordance with the applicable steps of table III herein.

4.4.3.1 Group C inspection, appendix E, table VII of MIL-PRF-19500.

Subgroup	Method	Conditions
C2	2036	Test condition A, weight = 5 lbs, t = 30s.
C6	1026	T _A = room ambient as defined in the general requirements of 4.5 of MIL-STD-750, I _O = rated I _O (see 4.3.1); adjust I _O or T _A as required to achieve T _J ≤ +125°C, V _{RWM} = 1,000 V.

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

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

4.5.2 Inspection of conditions. Unless otherwise specified, all inspections shall be conducted at an ambient temperature T_A = +25°C ± 3°C.

4.5.3 Reverse-recovery time.

4.5.3.1 Reverse recovery time. The reverse recovery time shall be measured in the circuit of figure 2 or an equivalent circuit. The recovery conditions shall be 12.5 mA forward current to 25 mA reverse current. The reverse recovery time is defined as the time the rectifier begins to conduct in the reverse direction (crosses I = zero) until the reverse current decays to - 6.25 mA. The point of contact on the leads shall be no less than .375 inch (9.52 mm) from the diode body.

TABLE I. Group A inspection.

Inspection	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
<u>Subgroup 1</u>						
Visual and mechanical evaluation	2071					
<u>Subgroup 2</u>						
Forward voltage	4011	$I_F = 25 \text{ mA}$	V_{F1}			V dc
1N6528, 1N6529					3.0	
1N6530, 1N6531					7.0	
1N6532, 1N6533					9.0	
1N6534, 1N6535					14.0	
Reverse current leakage	4016	DC method; $V_R = \text{rated } V_R$ (see 1.3)	I_{R1}		0.10	$\mu\text{A dc}$
Breakdown voltage	4021	$I_R = 50 \mu\text{A dc}$	$V_{(BR)R1}$			
1N6528				1,500		V dc
1N6529				2,000		V dc
1N6530				2,500		V dc
1N6531				3,000		V dc
1N6532				4,000		V dc
1N6533				5,000		V dc
1N6534				7,500		V dc
1N6535				10,000		V dc
<u>Subgroup 3</u>						
High temperature operation:		$T_A = 150^\circ\text{C}$				
Reverse current leakage	4016	DC method; $V_R = \text{rated } V_R$ (see 1.3)	I_{R2}		50	$\mu\text{A dc}$
Low temperature operation:		$T_A = -55^\circ\text{C}$				
Forward voltage	4011	$I_F = 25 \text{ mA}$	V_{F2}			V dc
1N6528, 1N6529					4.8	
1N6530, 1N6531					11.2	
1N6532, 1N6533					14.4	
1N6534, 1N6535					22.4	

See footnote at end of table.

TABLE I. Group A inspection - Continued.

Inspection	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
<u>Subgroup 3</u> - Continued						
Breakdown voltage	4021	$I_R = 50 \mu\text{A dc}$	$V_{(BR)R2}$			V dc
1N6528					1,500	
1N6529					2,000	
1N6530					2,500	
1N6531					3,000	
1N6532					4,000	
1N6533					5,000	
1N6534					7,500	
1N6535					10,000	
<u>Subgroup 4</u>						
Reverse recovery		See 4.5.3 and figure 2	t_{rr}		70	ns
Capacitance	4001	$V_R = 50 \text{ V dc}, 1 \text{ kHz} \leq f \leq 100 \text{ kHz}$	C			pF
1N6528, 1N6529					4.0	
1N6530, 1N6531					2.0	
1N6532, 1N6533					1.0	
1N6534, 1N6535					0.5	
<u>Subgroups 5, 6 and 7</u>						
Not applicable						

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

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

Inspection	MIL-STD-750		Sampling plan
	Method	Conditions	
<u>Subgroup 1</u>			
Temperature shock	1051	500 cycles	12 devices c = 0
Electrical measurements		See table III, steps 1 and 2	
<u>Subgroup 2</u>			
Steady-state dc blocking life	1038	Condition A, t = 1,000 hours	12 devices c = 0
Electrical measurements		See table III, steps 1 and 2	
<u>Subgroup 3</u>			
Destructive physical analysis	2101		1 device, c = 0
<u>Subgroups 4 and 5</u>			
Not applicable			

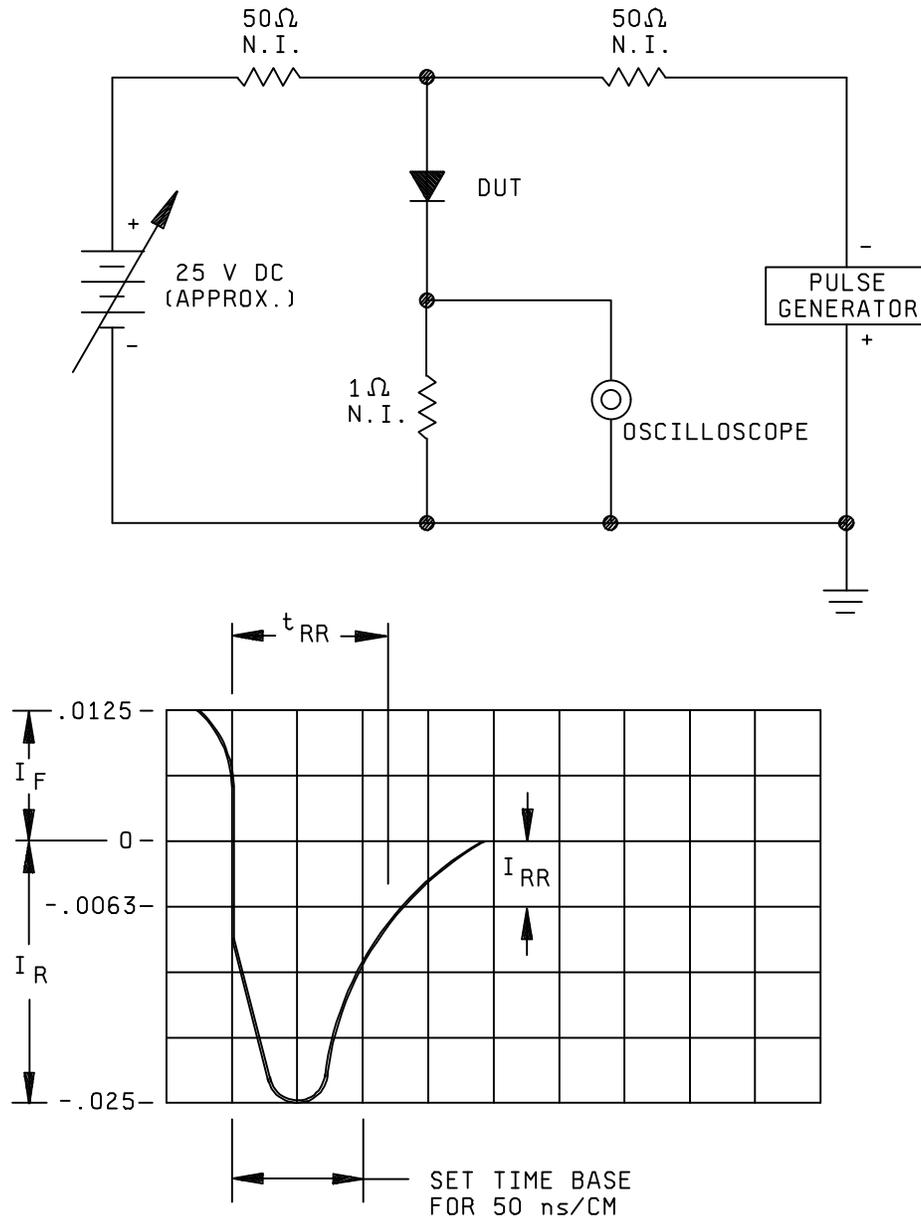
TABLE III. Groups A, B, C, and E electrical measurements. 1/ 2/ 3/

Step	Inspection	MIL-STD-750		Symbol	Limits		Unit
		Method	Conditions		Min	Max	
1.	Forward voltage 1N6528, 1N6529 1N6530, 1N6531 1N6532, 1N6533 1N6534, 1N6535	4011	Pulsed (see 4.5.1) $I_F = 25 \text{ mA}$ $t_p = 300 \mu\text{s}$; PPR = 60 Hz	V_{F1}		3.0 7.0 9.0 14.0	V (pk)
2.	Reverse current	4016	DC method $V_R = \text{rated } V_R$ (see 1.3)	I_{R1}		0.5	$\mu\text{A dc}$
3.	Reverse recovery time		See 4.5.3 and figure 2	t_{rr}		70	ns
4.	Capacitance 1N6528, 1N6529 1N6530, 1N6531 1N6532, 1N6533 1N6534, 1N6535	4001	$V_R = 50 \text{ V dc}$; $1 \text{ kHz} \leq f \leq 100 \text{ kHz}$	C		4.0 2.0 1.0 0.5	pF pF pF pF
5.	Forward voltage 1N6528, 1N6529 1N6530, 1N6531 1N6532, 1N6533 1N6534, 1N6535	4011	Pulsed (see 4.5.1) $I_F = 25 \text{ mA}$	ΔV_{F1}		± 0.2 ± 0.4 ± 0.8 ± 1.2	V (pk)
6.	Reverse current	4016	DC method	ΔI_{R1}	50 nA or 100 percent of initial value, whichever is greater.		

See footnotes at top of next page.

TABLE III. Groups A, B, C, and E electrical measurements - Continued. 1/ 2/ 3/

- 1/ The electrical measurements for appendix E, table VIa (JANS) of MIL-PRF-19500 are as follows:
- a. Subgroup 3, see table III herein, steps 1, 2, 3, 4, 5, and 6.
 - b. Subgroup 4, see table III herein, steps 1, 2, 3, 4, 5, and 6.
 - c. Subgroup 5, see table III herein, steps 1, 2, 3, 4, 5, and 6.
- 2/ The electrical measurements for appendix E, table VIb (JANTX and JANTXV) of MIL-PRF-19500 are as follows:
- a. Subgroup 2, see table III herein, steps 1, 2, and 3.
 - b. Subgroup 3, see table III herein, steps 1, 2, 3, and 4.
 - c. Subgroup 6, see table III herein, steps 1, 2, 3, and 4.
- 3/ The electrical measurements for appendix E, table VII of MIL-PRF-19500 are as follows:
- a. Subgroup 2, see table III herein, steps 1, 2, 3, 4, 5, and 6 (JANS); and steps 2, and 3 (JANTX and JANTXV).
 - b. Subgroup 3, see table III herein, steps 1, 2 and 3.
 - c. Subgroup 6, see table III herein, steps 1, 2, 3, 4, 5, and 6 (JANS); and steps 2, 3, 4, and 5 (JANTX and JANTXV).



NOTES:

1. Oscilloscope-rise time ≤ 7 ns; input impedance = 1 megohm; 22 pF.
2. Pulse generator - rise time ≤ 10 ns; source impedance 50 ohms.
3. Recovery time shall be measured on the above circuit and with equipment as shown. The pulse generator shall have a pulse repetition frequency of 1 kHz and a pulse width of 200 ns. Recovery conditions: 12.5 A forward current to .25 mA reverse current. Recovery time measured when rectifier recovers to 6.3 mA.

FIGURE 2. Reverse recovery time test circuit and characteristic nomograph.

5. PACKAGING

5.1 Packaging. Packaging shall prevent mechanical damage of the devices during shipping and handling and shall not be detrimental to the device. 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 Agency's 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-PRF-19500.

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. See MIL- PRF-19500.

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 No.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, ATTN: DSCC-VQE, 3990 East Broad Street, Columbus, OH 43216-5000.

6.4 Substitution information. Devices covered by this specification are substitutable for the manufacturers' and users' Part or Identifying Number (PIN). This information in no way implies that manufacturers' PIN's are suitable as a substitute for the military PIN.

PIN	Manufacturer's CAGE code	Manufacturer's and user's PIN
1N6528	53711 60211	8502234-215 RM115 M15FG M15UFG
1N6529	53711 49956 94117 60211	8502234-220 G339806 194087 RM116 RM135 RM140 M20FG M20UFG
1N6530	53711 60211	8502234-225 RM117 M25FG M25UFG

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PIN	Manufacturer's CAGE code	Manufacturer's and user's PIN
1N6531	53711 60211	4027428-103 4027428-113 8502234-230 4056502 RA352 RA643 RM118 RM123 M30FG M30UFG
1N6532	53711 23426 60211	8502234-240 28005-12 RM119 RM130 M40FG M40UFG
1N6533	53711 60211	4027428-105 4027428-115 8502234-250 304-1-58A2 RA641 RA644 RM120 RM137 M50FG M50UFG
1N6534	53711 23426 60211	4027428-106 4027428-116 8502234-260 28005-7 RA642 RA645 RM121 RM131 M60FG M60FUFG
1N6535	58260 53711 23426 60211 23426 60211	13084424 8502234-280 8502234-300 28005-8 M100FG RM122 RM109 RM132 M100UFG M80FG M80UFG

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.

Custodians:

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

Preparing activity:

DLA - CC

(Project 5961-1974)

Review activities:

Army - AR, AV, MI, SM
Air Force - 11, 13, 19, 85, 99
Navy - AS, CG, MC, OS

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-19500/577A	2. DOCUMENT DATE (YYMMDD) 980703
3. DOCUMENT TITLE SEMICONDUCTOR DEVICE, DIODE, SILICON, POWER RECTIFIER, FAST RECOVERY, HIGH VOLTAGE TYPES 1N6528 THROUGH 1N6535 JAN, JANTX, JANTXV, AND JANS		
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) Commercial DSN FAX EMAIL	7. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY		
a. Point of contact: Alan Barone	b. TELEPHONE Commercial DSN FAX EMAIL 614-692-0510 850-0510 614-692-6939 alan_barone@dsccl.dla.mil	
c. ADDRESS: Defense Supply Center Columbus, ATTN: DSCC-VAT, 3990 East Broad Street, Columbus, OH 43216-5000	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 DSN 289-2340	