

The documentation and process conversion measures necessary to comply with this revision shall be completed by 8 October 1997

INCH-POUND

MIL-PRF-19500/500C
8 July 1997
SUPERSEDING
MIL-S-19500/500B
19 January 1993

PERFORMANCE SPECIFICATION

SEMICONDUCTOR DEVICE, DIODE, SILICON, TRANSIENT VOLTAGE SUPPRESSOR
UNIPOLAR TYPES 1N5555 THROUGH 1N5558, 1N5907, 1N5629A THROUGH 1N5665A
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 1500 watt, peak, pulse power, silicon, transient, voltage suppressor diodes. Four levels of product assurance are provided for each device as specified in MIL-PRF-19500.

1.2 Physical dimensions. See figure 1.

1.3 Maximum ratings. Maximum ratings are as shown in columns 5 through 8 of table III herein, and as follows:

$P_{PP} = 1500 \text{ W}$ (see figure 3) at $t_p = 1.0 \text{ ms}$.

$P_{M(AV)} = 1.0 \text{ W}$ (derate at $6.67 \text{ mW/}^\circ\text{C}$ above $T_A = +25^\circ\text{C}$) (see 6.3).

$I_{FSM} = 200 \text{ A}$ (pk) at $t_p = 8.3 \text{ ms}$ ($T_A = +25^\circ\text{C}$).

$-55^\circ\text{C} \leq T_J \leq +175^\circ\text{C}$ (ambient), $-55^\circ\text{C} \leq T_{STG} \leq +175^\circ\text{C}$ (ambient).

1.4 Primary electrical characteristics at $T_A = +25^\circ$. Primary electrical characteristics are shown in columns 2 and 4 of table III herein.

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.

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.

MIL-PRF-19500/500C

2.1.1 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

MILITARY

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

STANDARDS

MILITARY

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

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

2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this document shall take 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).

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

3.3 Abbreviations, symbols, and definitions. Abbreviations, symbols, and definitions used herein shall be as specified in MIL-PRF-19500 and as follows:

V_C ----- Clamping voltage. The maximum peak voltage appearing across the device when subjected to the peak pulse current I_{PP} .

I_{PP} -----Peak pulse current at a specified condition.

$I_{(BR)}$ -----Reverse breakdown current at a specified condition.

P_{PP} ----- Repetitive peak pulse power.

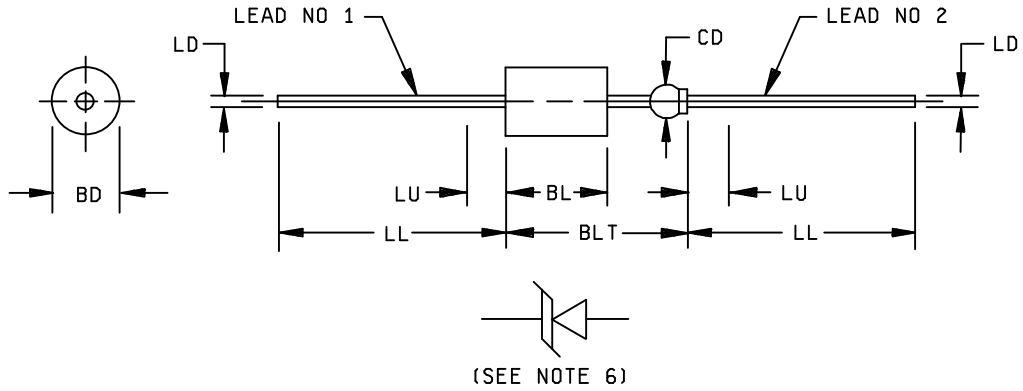
$\alpha V_{(BR)}$ ----- Temperature coefficient of $V_{(BR)}$.

3.4 Design, construction, and physical dimensions. The design, construction, and physical dimensions for the purpose of interchangeability shall be as specified on figure 1 herein.

3.4.1 Metallurgical bond construction. Metallurgically bonded construction is required. The bonding metal shall have flow points above 260°C.

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

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



Symbol	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
BD	.215	.235	5.46	5.97	1
BL	.293	.357	7.44	9.07	3
BLT	---	.570	---	14.48	
CD	.045	.100	1.14	2.54	5
LD	.025	.035	0.64	0.89	
LL	1.000	1.625	25.40	41.28	4
LU	---	.188	---	4.78	2

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The major diameter is essentially constant along its length.
4. Within this zone, diameter may vary to allow for lead finishes and irregularities.
5. Dimension to allow for pinch or seal deformation anywhere along tubulation.
6. Cathode lead shall be electrically connected to the case. If tubulation is used, it shall be on the anode end.
7. Symbol for internal construction of unipolar transient suppressor.

FIGURE 1. Physical dimensions, type 1N5555 through 1N5558, 1N5907, 1N5629A through 1N5665A (DO-13).

4. QUALITY ASSURANCE PROVISIONS

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

- a. Qualification inspection (see 4.2).
- b. Screening (see 4.3).
- c. Conformance inspection (see 4.3)

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

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 II of MIL-PRF-19500)	Measurement	
	JANS level	JANTX and JANTXV levels
3	$T_{(high)} = +175^{\circ}C$	$T_{(high)} = +175^{\circ}C$
9	Not applicable	Not applicable
10	Not applicable	Not applicable
11	Not applicable	Not applicable
12	See 4.5.1	See 4.5.1
13	Interim electrical, delta, and group A, subgroup 2 and 3 electrical parameters not applicable for this screen (performed in screen 12). Subgroup 3 of table I herein.	Interim electrical, delta, and group A, subgroup 2 and 3 electrical parameters not applicable for this screen (performed in screen 12).

4.4 Conformance inspection. Quality 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, appendix E, table V, and table I herein. End-point electrical measurements shall be in accordance with the applicable steps of table II 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 (JAN, JANTX, and JANTXV) of MIL-PRF-19500. Electrical measurements (end-points) and delta requirements shall be in accordance with the applicable steps of table II herein.

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

Subgroup	Method	Conditions
B3	4066	Condition for surge, 1 cycle, see 4.5.3b.
B5	1027	Condition for accelerated steady-state operation life are as follows: See 4.5.2, $T_A = +100^{\circ}C$ (min); $T_J = +225^{\circ}C$ (min); $t = 168$ hours minimum.
B4 and 6		Not applicable.

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

Subgroup	Method	Conditions
B2	4066	1 cycle, see 4.5.3b.
B3	1027	See 4.5.1, 1 ms pulse only (see 4.5.3b).
B5		Not applicable.

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 II herein.

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

Subgroup	Method	Conditions
C2	2036	Lead tension: Test condition A; weight = 5 pounds; t = 15 ±3 s. Lead fatigue: Test condition E; weight = 8 ounces.
C6	1026	See 4.5.1, 1 ms pulse only (see 4.5.3b).
C7		Condition for temperature coefficient of breakdown voltage are as follows: $I_{(BR)} = \text{column 3 of table III, } T_1 = +25^\circ\text{C} \pm 3^\circ\text{C, } T_2 = T_1 + 100^\circ\text{C.}$
C8		Condition for maximum peak pulse current are as follow: See 4.5.3a, (20 μs pulse only) 10 pulses.

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

4.5.1 Power burn-in (HTRB) and steady-state operation life test conditions. The test conditions and order of events shall be as follows:

- a. Read and record I_D and $V_{(BR)}$ at $T_A = +25^\circ\text{C}$.
- b. Pulse in accordance with 4.5.3b, 20 times (screening and Group B) and 100 times (group C) at $T_A = +25^\circ\text{C}$.
- c. Read I_D at $T_A = +25^\circ\text{C}$, remove defective devices and record the number of failures.
- d. Apply the working peak reverse voltage (V_{WM}) (column 4 of table III) at an ambient temperature of $+125^\circ\text{C}$ as follows:
 - (1) 96 hours (JANTX and JANTXV) and 240 hours (JANS) for the screening test.
 - (2) 340 hours (JAN, JANTX, and JANTXV) for group B steady-state operation life test.
 - (3) 1,000 hours for group C steady-state operation life test.
- e. Read and record I_R and $V_{(BR)}$ at $T_A = +25^\circ\text{C}$. Devices with $\Delta I_R > 50$ percent (100 percent for steady-state operation life) of the initial reading or 1 μA dc, whichever is greater, or $\Delta V_{(BR)} > \pm 2$ percent (± 5 percent for steady-state operation life) initial value shall be considered defective. Remove defective devices and record the number of failures. (For steady-state operation life, I_R maximum limit shall be two times the group A limit).

4.5.1.1 Group C steady-state operation life test (alternate procedure). When the group B 340 hour life test is continued on test to 1,000 hours to satisfy the group C life test requirements, the test shall be performed as given in 4.5.1 with the following exceptions:

- a. 4.5.1 step b shall be moved and performed following step e.
- b. 4.5.1 step e shall be repeated after step b is performed.

4.5.2 Accelerated steady-state operation life (JANS). This test shall be conducted with the devices subjected to the breakdown current specified in column 10 of table III for a total duration of 168 hours. At the beginning and end (with devices cooled to $T_A = +25^\circ\text{C}$) of the test, the devices shall be subjected to pulse conditions at the rate of one pulse per minute (max) for 10 pulses in accordance with 4.5.3 as specified.

4.5.3 Maximum peak pulse current (I_{PP}). The peak pulse currents specified in column 7 of table III shall be applied in the reverse direction while simultaneously maintaining a reverse bias voltage of not less than the applicable voltage specified in column 4 of table III. The peak current shall be applied with a current VS time waveform as follows (1 pulse per minute maximum):

- a. Pulse current shall reach 100 percent of I_{PP} at $t \leq 8 \mu\text{s}$ and decay to 50 percent of I_{PP} at $t \geq 20 \mu\text{s}$ for $t_p = 20 \mu\text{s}$, (see figure 5).
- b. Pulse current shall reach 100 percent of I_{PP} at $t \leq 10 \mu\text{s}$ and decay to 50 percent of I_{PP} at $t \geq 1 \text{ ms}$ for $t_p = 1 \text{ ms}$ (see figure 4).

NOTE: Tolerance on time (t) shall be -0, +10 percent.

4.5.4 Clamping voltage. The peak pulse clamping voltage shall be measured across the diode in a 1 ms time interval. The response detector shall demonstrate equipment accuracy of ± 3 percent. The peak clamping voltage as specified in column 6 of table III shall be applicable to the 1 ms pulse of 4.5.3b only.

MIL-PRF-19500/500C

TABLE I. Group A inspection.

Inspection ^{1/}	MIL-STD-750		Symbol	^{2/} Limits		Unit
	Method	Conditions		Min	Max	
<u>Subgroup 1</u>						
Visual and mechanical examination	2071					
<u>Subgroup 2</u>						
Reverse current	4016	DC method, $V_R = V_{WM}$ (column 4 of table III)	I_R		column 5	μA dc
Breakdown voltage	4022	$t_p \leq 300$ ms, duty cycle ≤ 2 percent, $I_{(BR)} =$ column 3 of table III	$V_{(BR)}$	column 2		V dc
<u>Subgroup 3</u>						
Minimum breakdown voltage	4022	$t_p \leq 300$ ms, duty cycle ≤ 2 percent, $I_{(BR)} =$ column 3 of table III, $T_A = -55^\circ C$	$V_{(BR)}$	column 9		V dc
<u>Subgroup 4</u>						
Clamping voltage maximum (pulsed) (see 4.5.4)		$t_p = 1.0$ ms (see 4.5.3b) $I_{PP} =$ column 7 of table III	V_C		column 6	V (pk)
Forward voltage	4011	$I_{FM} = 100$ A (pk), $t_p = 8.3$ ms duty (max), cycle = 4 pulses per minute (max)	V_{FM}		3.5	V (pk)
<u>Subgroup 5</u>						
Not applicable						
<u>Subgroup 6</u>						
Forward surge current	4066	$I_{FSM} = 200$ A (pk), one pulse, half sine wave (8.3 ms), $I_F = 0$; $V_{WM} = 0$; $T_A = 25^\circ C$				
End-point electrical measurements		See table II, steps 1 and 2				

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

^{2/} Column references are to table III.

TABLE II. Groups B and C electrical measurements. 1/ 2/ 3/

Step	Inspection	MIL-STD-750		Symbol	Limits 4/		Unit
		Method	Conditions		Min	Max	
1.	Reverse current	4016	DC method, $V_R = V_{WM}$ column 4 of table III	I_R		column 5	$\mu\text{A dc}$
2.	Breakdown voltage	4022	$t_p \leq 300$ ms, duty cycle ≤ 2 percent, $I_{(BR)} =$ column 3 of table III	$V_{(BR)}$	column 2		V dc
3.	Forward voltage	4011	$I_{FM} = 100$ A (pk), $t_p = 8.3$ ms (max) at a pulse rate of one pulse per minute (max)	V_{FM}		3.5	V (pk)
4.	Standby current	4016	DC method, $V_R = V_{WM}$ (column 4 of table III)	ΔI_D 5/			100 percent of initial reading or 20 percent of column 5 of table III, whichever is greater.
5.	Breakdown voltage	4022	$t_p \leq 300$ ms, duty cycle ≤ 2 percent, $I_{(BR)} =$ column 3 of table III	$\Delta V_{(BR)}$ 2/			± 5 percent of initial value
6.	Clamping voltage maximum (pulsed)		$t_p = 1.0$ ms, (see 4.5.3b), $I_{PP} =$ column 7 of table III	V_C		column 6	V (pk)

1/ The electrical measurements for appendix E, table VIa (JANS) of MIL-PRF-19500 are as follows:

- a. Subgroup 3, see table II herein, steps 1, 2, 3, and 6.
- b. Subgroup 5, see table II herein, steps 1, 2, 3, 4, and 5.

2/ The electrical measurements for appendix E, table VIb (JANTX and JANTXV) of MIL-PRF-19500 are as follows:

- a. Subgroup 2, see table II herein, steps 1 and 2.
- b. Subgroup 6 see table II herein, steps 1, 2, 4, and 5.

3/ The electrical measurements for appendix E, table VII of MIL-PRF-19500 are as follows:

- a. Subgroup 2 and 3, see table II herein, steps 1, 2, and 3 for JANS and steps 1 and 2 for JANTX and JANTXV.
- b. Subgroup 6, see table II herein, steps 1 and 2 for all levels.

4/ Column references are to table III.

5/ Devices which exceed the group A limits for this test shall not be accepted

TABLE III. Characteristics and ratings.

Col 1 Type	Col 2 Breakdown voltage $V_{(BR)}$ at $I_{(BR)}$		Col 3 Test current $I_{(BR)}$	Col 4 Working reverse voltage V_{WM}	Col 5 Maximum reverse current I_R	Col 6 Maximum clamping voltage V_C at I_{PP} for $t_p = 1$ ms	Col 7 Maximum peak pulse current (I_{PP})		Col 8 Maximum temperature coefficient of $V_{(BR)}$ $\alpha V_{(BR)}$	Col 9 Minimum breakdown voltage at $I_{(BR)}$ $T_A = -55^\circ C$	Col 10 Breakdown current $I_{(BR)}$ maximum dc current $T_A = +25^\circ C$
	Min	Max					$t_p = 20 \mu s$ $t_r = 8 \mu s$	$t_p = 1 \mu s$ $t_r = 10 \mu s$			
	V dc	V dc	mA dc	V (pk)	μA dc	V (pk)	A (pk)	A (pk)	$\alpha/^\circ C$	V dc	mA dc
1N5555	33.00	---	1	30.50	5	47.5	193	32.0	.093	30.20	27.0
1N5556	43.70	---	1	40.30	5	63.5	136	24.0	.094	40.00	21.0
1N5557	54.00	---	1	49.00	5	78.5	116	19.0	.096	48.50	16.0
1N5558	191.00	---	1	175.00	5	265.0	33	5.7	.100	172.00	4.5
1N5907	6.00	6.75	1	5.00	300	10.0	1,000	150.0	.057	5.63	140.0
1N5629A	6.45	7.14	10	5.80	1,000	10.5	810	143.0	.057	6.05	140.0
1N5630A	7.13	7.88	10	6.40	500	11.3	750	132.0	.061	6.66	125.0
1N5631A	7.79	8.61	10	7.02	200	12.1	700	124.0	.065	7.24	115.0
1N5632A	8.65	9.55	1	7.78	50	13.4	630	112.0	.068	8.01	104.0
1N5633A	9.50	10.50	1	8.55	10	14.5	585	103.5	.073	8.75	95.0
1N5634A	10.50	11.60	1	9.40	5	15.6	545	96.0	.075	9.65	86.0
1N5635A	11.40	12.60	1	10.20	5	16.7	510	90.0	.078	10.40	73.0
1N5636A	12.40	13.70	1	11.10	5	18.2	465	82.0	.081	11.30	70.0
1N5637A	14.30	15.80	1	12.80	5	21.2	400	71.0	.084	13.00	63.0
1N5638A	15.20	16.80	1	13.60	5	22.5	375	67.0	.086	13.70	59.0
1N5639A	17.10	18.90	1	15.30	5	25.2	335	59.5	.088	15.40	53.0
1N5640A	19.00	21.00	1	17.10	5	27.7	305	54.0	.090	17.10	47.0
1N5641A	20.90	23.10	1	18.80	5	30.6	275	49.0	.092	18.80	43.0
1N5642A	22.80	25.20	1	20.50	5	33.2	255	45.0	.094	20.50	39.0
1N5643A	25.70	28.40	1	23.10	5	37.5	225	40.0	.096	23.00	35.0
1N5644A	28.50	31.50	1	25.60	5	41.4	205	36.0	.097	23.50	31.0
1N5645A	31.40	34.70	1	28.20	5	45.7	185	33.0	.098	28.00	28.0
1N5646A	34.20	37.80	1	30.80	5	49.9	170	30.0	.099	30.50	26.0
1N5647A	37.10	41.00	1	33.30	5	53.9	155	28.0	.100	33.10	24.0
1N5648A	40.90	45.20	1	36.80	5	59.3	145	25.3	.101	36.40	22.0
1N5649A	44.70	49.40	1	40.20	5	64.8	130	23.2	101	39.80	20.0
1N5650A	48.50	53.60	1	43.60	5	70.1	120	21.4	.102	43.10	18.0
1N5651A	53.20	58.80	1	47.80	5	77.0	110	19.5	.103	47.30	17.0
1N5652A	58.90	65.10	1	53.00	5	85.0	100	17.7	.104	52.30	15.0
1N5653A	64.60	71.40	1	58.10	5	92.0	90	16.3	.104	57.30	14.0

Type	Breakdown voltage $V_{(BR)}$ at $I_{(BR)}$		Test current $I_{(BR)}$	Working peak reverse voltage V_{WM}	Maximum reverse current I_R	Maximum clamping voltage V_C at I_{PP} for $t_p = 1$ ms	Maximum peak pulse current (I_{PP})		Maximum temperature coefficient of $V_{(BR)}$ $\alpha V_{(BR)}$	Minimum breakdown voltage at $I_{(BR)}$ $T_A = -55^\circ\text{C}$	Breakdown current $(I_{(BR)})$ maximum dc current $T_A = +25^\circ\text{C}$
	Min	Max					$t_p = 20 \mu\text{s}$ $t_f = 8 \mu\text{s}$	$t_p = 1 \mu\text{s}$ $t_f = 10 \mu\text{s}$			
	V dc	V dc	mA dc	V (pk)	$\mu\text{A dc}$	V (pk)	A (pk)	A (pk)	$\alpha^\circ\text{C}$	V dc	mA dc
1N5654A	71.30	78.80	1	64.10	5	103.0	82	14.6	.105	63.20	12.0
1N5655A	77.90	86.10	1	70.10	5	113.0	75	13.3	.105	69.00	11.0
1N5656A	86.50	95.50	1	77.80	5	125.0	68	12.0	.106	76.50	10.0
1N5657A	95.00	105.00	1	85.50	5	137.0	62	11.0	.106	84.10	9.5
1N5658A	105.00	116.00	1	94.00	5	152.0	55	9.9	.107	92.80	8.5
1N5659A	114.00	126.00	1	102.00	5	165.0	50	9.1	.107	100.00	7.5
1N5660A	124.00	137.00	1	111.00	5	179.0	47	8.4	.107	109.00	7.0
1N5661A	143.00	158.00	1	128.00	5	207.0	40	7.2	.108	126.00	6.0
1N5662A	152.00	168.00	1	136.00	5	219.0	38	6.8	.108	134.00	5.8
1N5663A	162.00	179.00	1	145.00	5	234.0	36	6.4	.108	143.00	5.5
1N5664A	171.00	189.00	1	154.00	5	246.0	34	6.1	.108	151.00	5.0
1N5665A	190.00	210.00	1	171.00	5	274.0	30	5.5	.108	167.00	4.5

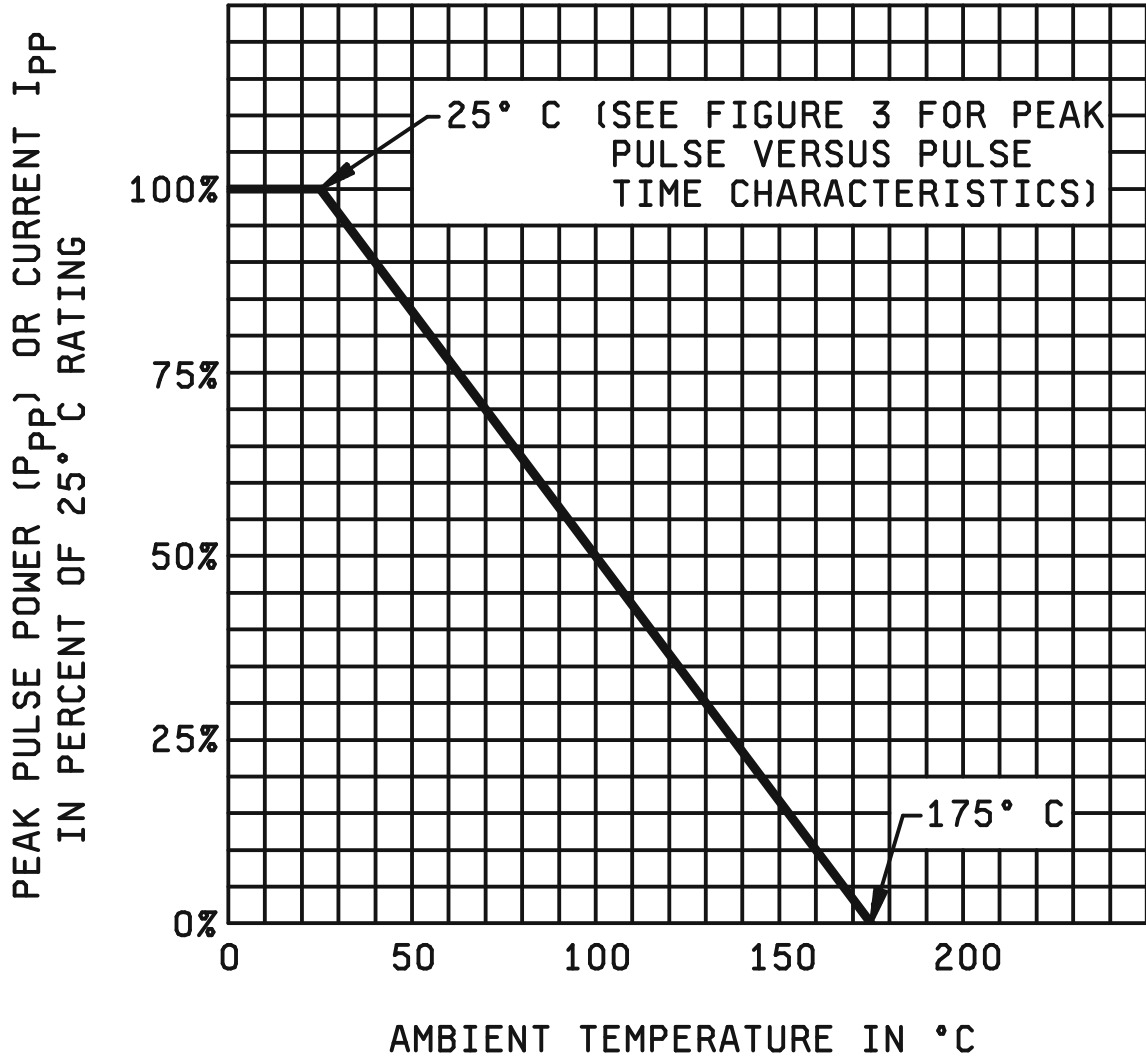


FIGURE 2. Derating curve.

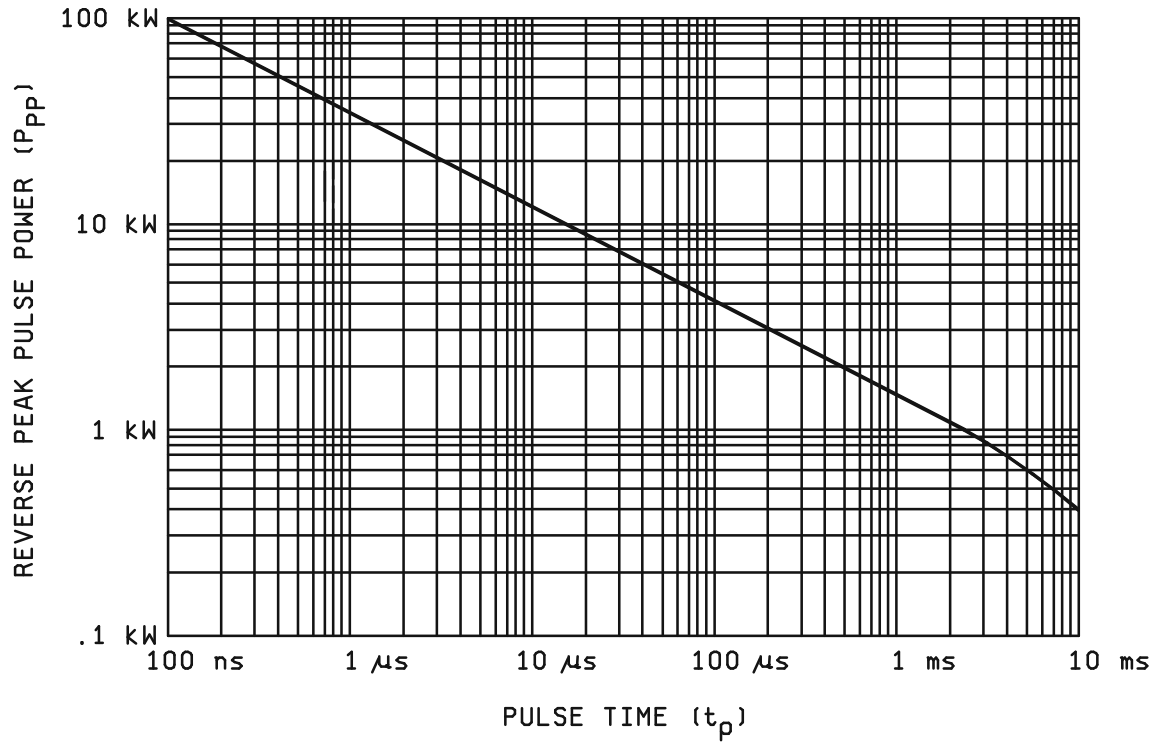
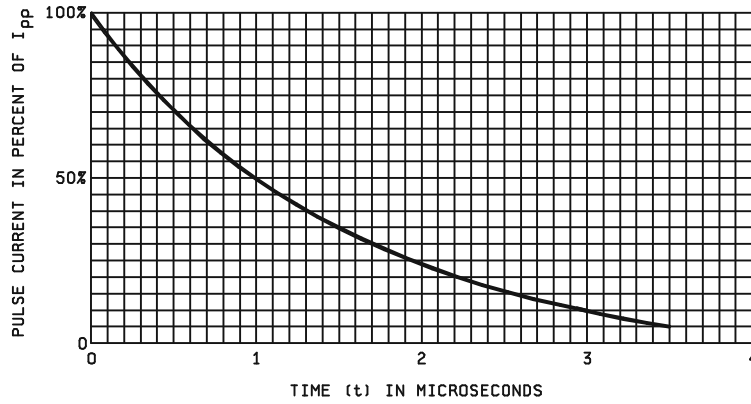
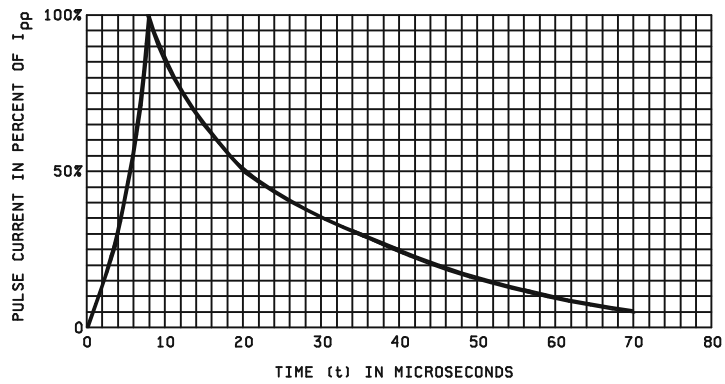


FIGURE 3. Reverse peak pulse power vs. pulse time.



NOTE: Pulse time duration is defined as that point where the pulse current decays to 50 percent of I_{pp}.
(Rise time to 100 percent of I_{pp} = 10 μs)

FIGURE 4. Current impulse waveform.



NOTE: Pulse time duration is defined as that point where the pulse current decays to 50 percent of I_{pp}.
(Rise time to 100 percent of I_{pp} = 8 μs)

FIGURE 5. Current impulse waveform.

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.

5.1 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. 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 the 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, Columbus Ohio 43216-5000.

6.4 Substitution information. Type numbers 1N5555 through 1N5558 were previously covered by MIL-S-19500/434.

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 5961-1832)

Review activities:

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

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-19500/500C

2. DOCUMENT DATE (YYMMDD)
970708

3. DOCUMENT TITLE

SEMICONDUCTOR DEVICE, DIODE, SILICON, TRANSIENT VOLTAGE SUPPRESSOR, TYPES 1N5555 THROUGH 1N5558, 1N5907, 1N5629A THROUGH 1N5665A, 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)

7. DATE SUBMITTED
(YYMMDD)

(1) Commercial

(2) AUTOVON
(If applicable)

8. PREPARING ACTIVITY

a. NAME Alan Barone

b. TELEPHONE (Include Area Code)

(1) Commercial (614)692-0510 (2) AUTOVON 850-0510

c. ADDRESS (Include Zip Code)

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 AUTOVON 289-2340