

The documentation and process conversion measures necessary to comply with this revision shall be completed by 22 June 2016.

INCH-POUND

MIL-PRF-19500/516G
22 March 2016
SUPERSEDING
MIL-PRF-19500/516F
w/AMENDMENT 1
12 September 2013

PERFORMANCE SPECIFICATION SHEET

- * SEMICONDUCTOR DEVICE, DIODE SILICON, BIPOLAR TRANSIENT VOLTAGE SUPPRESSOR, ENCAPSULATED (AXIAL LEAD THROUGH-HOLE AND SURFACE MOUNT PACKAGES) AND UN-ENCAPSULATED (DIE), TYPES 1N6102 THROUGH 1N6173, 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](#).

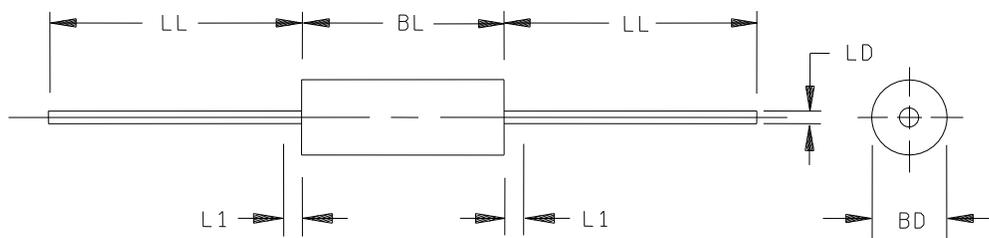
1. SCOPE

- * 1.1 Scope. This specification covers the performance requirements for bipolar 500 watt and 1,500 watt peak pulse power transient voltage suppressor diodes. Four levels of product assurance (JAN, JANTX, JANTXV, and JANS) are provided for each encapsulated device. Two levels of product assurance (JANHC and JANKC) are provided for each unencapsulated device (die). These devices have a ten percent voltage tolerance (no "A" suffix). The suffix "A" denotes a five percent voltage tolerance.
- * 1.2 Package outlines. The device package outlines are as follows: axial through hole package in accordance with [figure 1](#), surface mount US package in accordance with [figure 2](#), and surface mount URS package in accordance with [figure 3](#) for all encapsulated device types. See [figures 4](#) and [5](#) for unencapsulated devices.
- * 1.3 Maximum ratings. Maximum ratings are as shown in columns 4, 6, and 7 of the electrical characteristics table herein and as follows:
- $PM_{(AV)} = 2 \text{ W}$ (1N6102 through 1N6137 (including A, US, and URS suffix versions)) and 3 W (1N6138 through 1N6173 (including A, US, and URS suffix versions)) at $T_A = +25^\circ\text{C}$ (see [figure 6](#) for derating).
 - $PM_{(AV)} = 3 \text{ W}$ (1N6102 through 1N6137 (including A, US, and URS suffix versions)) and 5 W (1N6138 through 1N6173 (including A, US, and URS suffix versions)) at $T_L = +75^\circ\text{C}$ for $L = 0.375 \text{ inch}$ (9.53 mm) (see [figure 7](#)).
 - $P_{pp} = 500 \text{ W}$ (1N6102 through 1N6137 (including A, US, and URS suffix versions)) and $1,500 \text{ W}$ (1N6138 through 1N6173 (including A, US, and URS suffix versions)) at $t_p = 1 \text{ ms}$ (see [figure 8](#)).
 - $-55^\circ\text{C} \leq T_{OP} \leq +175^\circ\text{C}$, $-55^\circ\text{C} \leq T_{STG} \leq +175^\circ\text{C}$ (ambient temperatures).
- 1.4 Primary electrical characteristics. Primary electrical characteristics are as shown in columns 2 and 4 of the electrical characteristics table herein.

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. 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>.



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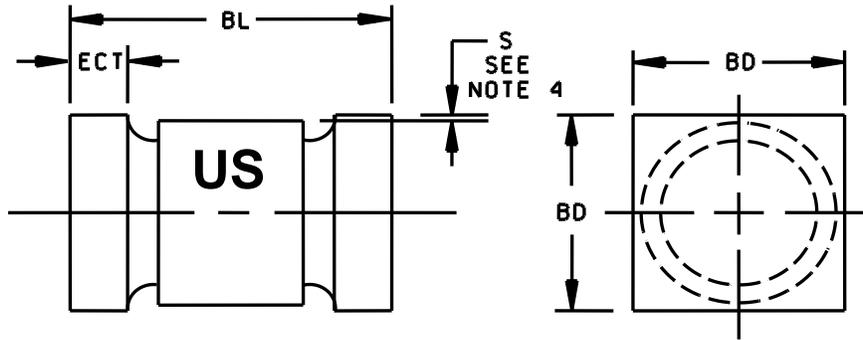


Ltr	Dimensions								Notes
	1N6102 through 1N6137 1N6102A through 1N6137A				1N6138 through 1N6173 1N6138A through 1N 6173A				
	Inches		Millimeters		Inches		Millimeters		
	Min	Max	Min	Max	Min	Max	Min	Max	
BD	.085	.140	2.16	3.56	.135	.185	3.43	4.70	3
BL	.140	.185	3.56	4.70	.140	.195	3.56	4.95	
LD	.026	.033	0.66	0.84	.036	.042	0.91	1.07	
LL	1.00	1.30	25.4	33.02	1.00	1.30	25.4	33.02	
L1		.030		0.76		.030		0.76	4

NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Dimension BD shall be measured at the largest diameter.
4. Dimension L1 lead diameter uncontrolled in this area.
5. In accordance with ASME Y14.5M, diameters are equivalent to Φx symbology.

FIGURE 1. Semiconductor device, diode, types 1N6102 through 1N6173 and 1N6102A through 1N6173A.

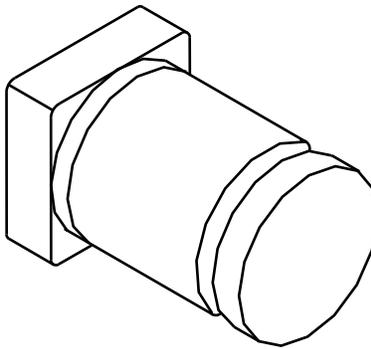
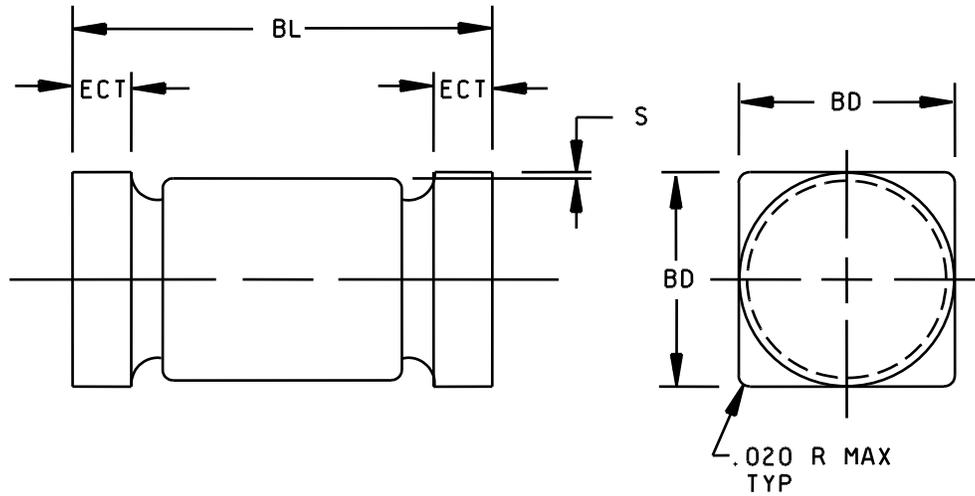


Ltr	Dimensions							
	1N6102US through 1N6137US, 1N6102AUS through 1N6137AUS				1N6138US through 1N6173US 1N6138AUS through 1N6173AUS			
	Inches		Millimeters		Inches		Millimeters	
	Min	Max	Min	Max	Mini	Max	Min	Max
BD	.137	.148	3.48	3.76	.183	.202	4.65	5.13
BL	.200	.225	5.08	5.72	.205	.245	5.21	6.22
ECT	.019	.028	0.48	0.71	.019	.028	0.48	0.71
S	.003		0.08		.003		0.08	

NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Minimum clearance of glass body to mounting surface on all orientations.
4. In accordance with ASME Y14.5M, diameters are equivalent to Φx symbology.

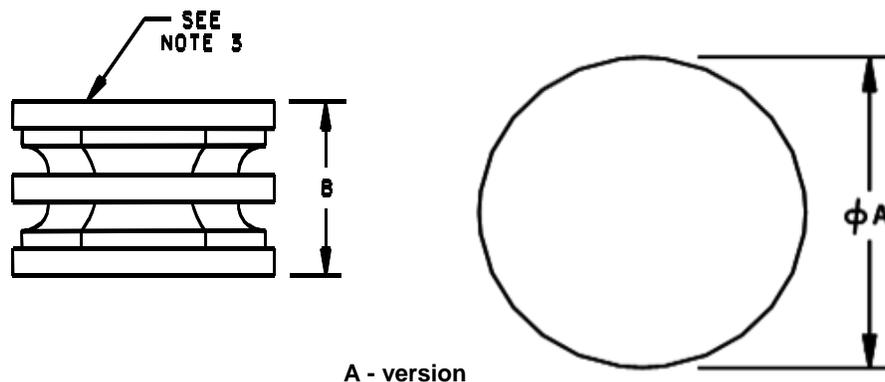
FIGURE 2. Semiconductor device, diode 1N6102US through 1N6173US, 1N6102AUS through 1N6173AUS.



NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Dimensions are pre-solder dip.
4. One end-cap shall be square and the other end-cap shall be round.
5. In accordance with ASME Y14.5M, diameters are equivalent to Φ x symbology.

FIGURE 3. Semiconductor device, diode 1N6102URS through 1N6173URS, 1N6102AURS through 1N6173AURS.

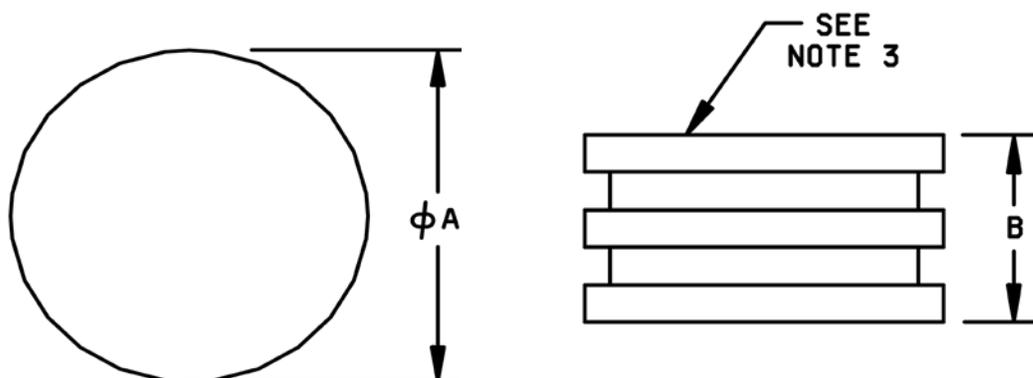


Dimensions								
Ltr	1N6102 through 1N6137 1N6102A through 1N6137A				1N6138 through 1N6173 1N6138A through 1N6173A			
	Inches		Millimeters		Inches		Millimeters	
	Min	Max	Min	Max	Min	Max	Min	Max
φA	.087	.093	2.21	2.36	.124	.130	3.15	3.30
B	.030	.040	0.76	1.02	.030	.040	0.76	1.02

NOTES:

1. Dimensions are in inches.
2. Millimeters are for general information only.
3. Silver plate 250 microinches (6.3 mm) nominal on all surfaces of three discs.
4. In accordance with ASME Y14.5M, diameters are equivalent to Φ x symbology.

FIGURE 4. Physical dimensions, JANHC and JANKC die (A-version), 1N6102 through 1N6173, 1N6102A through 1N6173A.



B - version

Dimensions								
Ltr	1N6103 through 1N6137 1N6103A through 1N6137A				1N6138 through 1N6173 1N6138A through 1N6173A			
	Inches		Millimeters		Inches		Millimeters	
	Min	Max	Min	Max	Min	Max	Min	Max
ΦA	.087	.093	2.21	2.36	.123	.128	3.12	3.25
B	.110	.120	2.79	3.05	.110	.120	2.79	3.05

NOTES:

1. Dimensions are in inches.
2. Millimeters are for general information only.
3. Silver thickness 120 microinches (3 mm) nominal on all discs.
4. In accordance with ASME Y14.5M, diameters are equivalent to Φx symbology.

FIGURE 5. Physical dimensions, JANHC and JANKC die (B-version), 1N6102 through 1N6173, 1N6102A through 1N6173A.

- * 1.5 Part or Identifying Number (PIN). The PIN is in accordance with [MIL-PRF-19500](#), and as specified herein. See [6.4](#) for PIN construction example and [6.5](#) for a list of available PINs.
- * 1.5.1 JAN certification mark and quality level for encapsulated devices. The quality level designators for encapsulated devices that are applicable for this specification sheet from the lowest to the highest level are as follows: "JAN", "JANTX", "JANTXV" and "JANS".
- * 1.5.2 JAN certification mark and quality level for unencapsulated devices (die). The quality level designators for unencapsulated devices (die) that are applicable for this specification sheet from the lowest to the highest level are as follows: "JANHNC" and "JANKC".
- * 1.5.3 Device type. The designation system for the device types of diodes covered by this specification sheet are as follows.
 - * 1.5.3.1 First number and first letter symbols. The diodes of this specification sheet use the first number and letter symbols "1N".
 - * 1.5.3.2 Second number symbols. The second number symbols for the diodes covered by this specification sheet are as follows: "6102", "6103", "6104", "6105", "6106", "6107", "6108", "6109", "6110", "6111", "6112", "6113", "6114", "6115", "6116", "6117", "6118", "6119", "6120", "6121", "6122", "6123", "6124", "6125", "6126", "6127", "6128", "6129", "6130", "6131", "6132", "6133", "6134", "6135", "6136", "6137", "6138", "6139", "6140", "6141", "6142", "6143", "6144", "6145", "6146", "6147", "6148", "6149", "6150", "6151", "6152", "6153", "6154", "6155", "6156", "6157", "6158", "6159", "6160", "6161", "6162", "6163", "6164", "6165", "6166", "6167", "6168", "6169", "6170", "6171", "6172", and "6173".
 - * 1.5.3.3 First suffix symbols. Following the second number symbols, the suffix letter "A" is used on devices that have a 5 percent voltage tolerance. Devices with no "A" suffix have a 10 percent voltage tolerance.
 - * 1.5.3.4 Second suffix symbols. The following suffix symbols are incorporated in the PIN for this specification sheet:

	No second suffix Indicates a through hole mount, axial package. (see figure 1)
US	Indicates a surface mount, square endcap package. (see figure 2)
URS	Indicates a surface mount, 1 round endcap and 1 square endcap package. (see figure 3)

- * 1.5.5 Lead finish. The lead finishes applicable to this specification sheet are listed on [QPDSIS-19500](#).
- * 1.5.6 Die identifiers for unencapsulated devices (manufacturers and critical interface identifiers). The manufacturer die identifiers that are applicable for this specification sheet are "A" and "B" (see [figures 4](#) and [5](#) and [6.5.1](#)).

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 of 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 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/>).

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.

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 manufacturers list 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](#) and as follows.

I(BR)	Reverse breakdown current at the specified condition.
PPP	Reverse peak pulse power.
V _C (max)	Maximum clamping voltage. The maximum peak voltage appearing across the device when subjected to the peak pulse current I _p .
α V(BR)	Temperature coefficient of V(BR).

3.4 Interface and physical dimensions. Interface and physical dimensions shall be as specified in [MIL-PRF-19500](#) and on [figure 1](#), [2](#), and [3](#) herein.

3.4.1 Metallurgical bond construction. Devices shall be metallurgically bonded, thermally matched, non-cavity, double-plug construction in accordance with the requirements of category I (see [MIL-PRF-19500](#)), and herein. The "US" and "URS" version shall be structurally identical to the axial lead type except for lead configuration.

3.4.2 Lead finish. Lead finish shall be solderable in accordance with MIL-PRF-19500, MIL-STD-750, and herein. 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. The part number may be reduced to J610X, JX610X, JV610X or JS610X. Polarity marking is not required.

3.5.1 Marking of US and URS version devices. At the option of the manufacturer, US and URS version devices may include laser marking on an end-cap, to include part number and lot date code for all levels. JANS levels shall also include serialization. The prefixes JAN, JANTX, JANTXV, or JANS may be abbreviated as J, JX, JV, or JS, respectively. (For example: The part number may be reduced to JS6102A). All marking which is omitted from the body of the device shall appear on the initial container. All device marking, except for polarity and serial numbers, shall also appear on the unit package used as the initial protection for delivery.

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

3.7 Electrical test requirements. The electrical test requirements shall be the subgroups specified in tables I and II.

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).

4.2 Qualification inspection. Qualification inspection shall be in accordance with MIL-PRF-19500. A separate qualification shall be required for the 500-watt and 1,500-watt peak pulse power device, respectively.

4.2.1 JANHC and JANKC die. JANHC and JANKC die shall be qualified in accordance with MIL-PRF-19500.

4.2.2 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 require the performance of table III tests, the tests specified in table III 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 (JANS, JANTX, and JANTXV levels only). Screening 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	Measurement	
	JANS level	JANTX and JANTXV levels
5	Not applicable	Not applicable
9, 10, 11	Not applicable	Not applicable
12	See 4.5.1	See 4.5.1
13	Interim electrical, delta, and group A, subgroup 2, electrical parameters not applicable for this screen (performed in screen 12).	Interim electrical, delta, and group A, subgroup 2, electrical parameters not applicable for this screen (performed in screen 12).

4.3.1 Screening (JANHC and JANKC die). Screening of JANHC and JANKC die shall be in accordance with MIL-PRF-19500. As a minimum, die shall be 100-percent probed in accordance with table I, subgroup 2 herein.

4.4 Conformance inspection. Conformance inspection shall be in accordance with MIL-PRF-19500, and as specified herein. A separate quality conformance inspection shall be required for the 500-watt and 1,500-watt peak pulse power devices, respectively.

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 E-VIA (JANS) and table E-VIB (JAN, JANTX, and JANTXV) of MIL-PRF-19500, and as follows. Electrical measurements (end-points) and delta requirements shall be performed twice (once in each direction), in accordance with table I, subgroup 2 herein.

- * 4.4.2.1 Quality level JANS, table E-VIA of MIL-PRF-19500.

Subgroup	Method	Condition
B4		Not applicable.
B5	1027	T _A = +100°C minimum (see 4.5.2 and 4.5.3).

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

Subgroup	Method	Condition
B3	1027	See 4.5.1.
B5		Not applicable.
B6		Delta limits: $\Delta I_{D1} \leq 100$ percent of initial reading or 20 percent of column 5 of table II, whichever is greater; $\Delta V_{(BR)} \leq 5$ percent of initial value.

- * 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 performed twice (once in each direction), in accordance with table I, subgroup 2 herein.

<u>Subgroup</u>	<u>Method</u>	<u>Condition</u>
* C2	2036	Axial devices – Tension: Condition A, 12 pounds (5.4 kg) for 1N6102 through 1N6137, t = 15s. Condition A, 20 pounds (9.1 kg) for 1N6138 through 1N6173. Fatigue: Condition E for all types, 2 pounds (0.91 kg), (Lead fatigue is not applicable to US, URS diodes).
* C2	2038	US, URS devices – Tension: Condition B, 12 pounds (5.4 kg) for 1N6102 through 1N6137. Condition B, 20 pounds (9.1 kg) for 1N6138 through 1N6173. Suitable fixtures may be used to pull the end-caps in a manner which does not aid construction. Reference to axial lead may be interpreted as end-cap with fixtures used for mounting. (Lead fatigue is not applicable to US and URS diodes).
C6	1026	See 4.5.1 and 4.5.3.
C7	4071	$I_{(BR)}$ = column 3 of table II, $T_1 = +25^\circ\text{C} \pm 3^\circ\text{C}$, $T_2 = T_1 + 100^\circ\text{C}$; sampling plan shall be 45 devices, $c = 0$; $\alpha V_{(BR)}$ = column 8 of table II.

- * 4.4.4 Group E inspection. Group E inspection shall be conducted in accordance with the conditions specified for subgroup testing in table E-IX of MIL-PRF-19500 and as specified herein.

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

4.5.1 Power burn-in and steady-state operation life test conditions. For the purposes of this test, the direction in which the device is first pulsed shall be considered polarity A and the reverse direction polarity B. The test conditions and order of events shall be as follows:

- a. Pulse in accordance with 4.5.3, in polarity A 5 times (screening and group B) and 50 times (group C) at $T_A = +25^\circ\text{C}$.
- b. Pulse in accordance with 4.5.3, in polarity B 5 times (screening and group B) and 50 times (group C) at $T_A = +25^\circ\text{C}$.
- c. Read and record I_{R1} and $V_{(BR)1}$ in polarities A and B at $T_A = +25^\circ\text{C}$, remove defective devices and record number of failures.
- d. Apply the working peak reverse voltage (V_{RWM}) (column 4 of table II) in polarity A at $T_A = +125^\circ\text{C}$ as follows:
 - (1) For 48 hours (JANTX and JANTXV) and 120 hours (JANS) for the screening test.
 - (2) For 170 hours (JAN, JANTX, and JANTXV) for group B steady-state operation life test.
 - (3) For 500 hours for group C steady-state operation life test.
- e. Read I_{R1} in polarity A at $T_A = +25^\circ\text{C}$. Devices with $\Delta I_{R1} > 50$ percent (100 percent for steady-state operation life) of the initial reading or 20 percent of column 5 of table II, whichever is greater, shall be considered defective. Remove defective devices and record the number of failures.

4.5.1 Power burn-in and steady-state operation life test conditions. – continued.

- f. Apply the working peak pulse reverse voltage (V_{RWM}) (column 4 of [table II](#)) in polarity B at $T_A = +125^\circ\text{C}$ as follows:
 - (1) For 48 hours (JANTX and JANTXV) and 120 hours (JANS) for the screening test.
 - (2) For 170 hours (JAN, JANTX, and JANTXV) for group B steady-state operation life test.
 - (3) For 500 hours for group C steady-state operation life test.
- g. Read I_{D1} in polarity B at $T_A = +25^\circ\text{C}$. Devices with $\Delta I_{D1} > 50$ percent (100 percent for steady-state operation life) of the initial reading or 20 percent of column 5 of [table II](#), whichever is greater, shall be considered defective. Remove defective devices and record the number of failures.
- h. Read $V_{(BR)1}$ in polarities A and B at $T_A = +25^\circ\text{C}$. Devices with $\Delta V_{BR1} > \pm 2$ percent (± 5 percent for steady-state operation life) of the initial reading shall be considered defective. Remove defective devices and record the number of failures.
- i. Read ΔI_{D1} in polarity A at $T_A = +25^\circ\text{C}$, remove defective devices and record the number of failures.

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. In 4.5.1, steps a and b shall be moved and performed following step g.
- b. In 4.5.1, steps e and g shall be repeated after steps a and b are performed and before step h is completed (step i may be omitted when this procedure is used).

4.5.2 Accelerated steady-state operation life. This test shall be conducted with the devices subjected to the breakdown current specified in column 3 of [table II](#) in opposite polarities for 48 +8, -4 hours in each polarity. At the beginning of the test and at the end of each time period, the devices shall be temperature stabilized at $T_A = +25^\circ\text{C}$ and subjected to pulse conditions at the rate of one pulse per minute (max) for ten pulses each, in accordance with 4.5.3 as specified.

4.5.3 Maximum peak pulse current (I_p). The peak pulse currents specified in column 7 of [table II](#) shall be applied simultaneously maintaining a bias voltage, not less than the applicable voltage in column 4 of [table II](#), in the same polarity as the peak pulse current. The clamping voltage (V_c) shall be as specified in 4.5.4. The peak pulse current shall be applied with a current versus time waveform (1 pulse per minute maximum) such that the pulse current shall reach 100 percent of I_p at $t \leq 10 \mu\text{s}$ and decay to 50 percent of I_p at $t \geq 1 \text{ ms}$ for $t_p = 1 \text{ ms}$ (see [figure 9](#)). NOTE: Tolerance on time (t) shall be +10 -0 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.

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TABLE I. Group A inspection.

Inspection <u>1/</u>	MIL-STD-750		Symbol	Limit		Unit
	Method	Conditions		Min	Max	
<u>Subgroup 1</u> Visual and mechanical examination	2071					
<u>Subgroup 2 2/</u> Reverse current leakage	4016	DC method, $V_R = V_{RWM}$ (column 4 of table II herein)	I_{D1}		Column 5 of table II	μA dc
Breakdown voltage	4022	$t_p \leq 300$ ms, duty cycle ≤ 2 percent $I_{(BR)} =$ column 3 of table II herein	$V_{(BR)1}$	Column 2 of table II		V dc
<u>Subgroup 3 2/</u> High temperature operation		$T_A = +150^\circ C$				
Reverse current leakage	4016	DC method, $V_R = V_{RWM}$ (column 4 of table II herein)	I_{D2}		Column 9 of table II	μA dc
<u>Subgroup 4 2/</u> Clamping voltage maximum (pulsed)		$t_p = 1$ ms (see 4.5.3 and 4.5.4), $I_p =$ column 7 of table II herein	$V_{C(MAX)}$		Column 6 of table II	V (pk)
<u>Subgroups 5 and 6</u> Not applicable						

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

2/ All electrical testing shall be performed twice, once in each direction.

TABLE II. Electrical characteristics (for 500 W and 1,500 W series diodes limits apply in both directions).

Column 1		Column 2	Column 3	Column 4	Column 5		Column 6	Column 7		Column 8	Column 9	
Series type		$V_{(BR)1}$ Breakdown voltage at $I_{(BR)}$	$I_{(BR)}$ Test current	V_{RWM} Working peak reverse voltage	I_{D1} Maximum reverse current		V_C (max) Maximum clamping voltage at I_p $t_p = 1$ ms	I_p Maximum peak pulse current		$\alpha V_{(BR)}$ Maximum temp. Coeff. of $V_{(BR)}$	I_{D2} Maximum reverse current at $T_A = +150^\circ\text{C}$	
500 W	1,500 W	$\frac{\text{Min } V_{dc}}{1/}$	$\frac{\text{mA } dc}{1/}$	$\frac{V_{dc}}{1/}$	$\frac{\mu A \text{ } dc}{2/}$	$\frac{\mu A \text{ } dc}{3/}$	$\frac{V \text{ (pk)}}{1/}$	$\frac{A \text{ (pk)}}{2/}$	$\frac{A \text{ (pk)}}{3/}$	$\frac{\% / ^\circ\text{C}}{1/}$	$\frac{\mu A \text{ } dc}{2/}$	$\frac{\mu A \text{ } dc}{3/}$
1N6102	1N6138	6.12	175	5.2	100	500	11.0	45.4	136.4	.05	4,000	12,000
1N6102A	1N6138A	6.46	175	5.2	100	500	10.5	47.6	142.8	.05	4,000	12,000
1N6103	1N6139	6.75	175	5.7	50	300	11.8	42.4	127.1	.06	750	3,000
1N6103A	1N6139A	7.13	175	5.7	50	300	11.2	44.6	133.9	.06	750	3,000
1N6104	1N6140	7.38	150	6.2	20	100	12.7	39.4	118.1	.06	500	2,000
1N6104A	1N6140A	7.79	150	6.2	20	100	12.1	41.3	124.0	.06	500	2,000
1N6105	1N6141	8.19	150	6.9	20	100	14.0	35.7	107.1	.06	300	1,200
1N6105A	1N6141A	8.65	150	6.9	20	100	13.4	37.3	111.9	.06	300	1,200
1N6106	1N6142	9.00	125	7.6	20	100	15.2	32.9	98.7	.07	200	800
1N6106A	1N6142A	9.50	125	7.6	20	100	14.5	34.5	103.4	.07	200	800
1N6107	1N6143	9.90	125	8.4	20	20	16.3	30.7	92.0	.07	200	800
1N6107A	1N6143A	10.45	125	8.4	20	20	15.6	32.0	96.2	.07	200	800
1N6108	1N6144	10.80	100	9.1	20	20	17.7	28.2	84.7	.07	150	600
1N6108A	1N6144A	11.40	100	9.1	20	20	16.9	29.6	88.8	.07	150	600
1N6109	1N6145	11.70	100	9.9	20	20	19.0	26.3	78.9	.08	150	600
1N6109A	1N6145A	12.35	100	9.9	20	20	18.2	27.5	82.4	.08	150	600
1N6110	1N6146	13.50	75	11.4	20	20	21.9	22.8	68.5	.08	100	400
1N6110A	1N6146A	14.25	75	11.4	20	20	21.0	23.8	71.4	.08	100	400
1N6111	1N6147	14.40	75	12.2	20	20	23.4	21.4	64.1	.08	100	400
1N6111A	1N6147A	15.20	75	12.2	20	20	22.3	22.4	67.3	.08	100	400
1N6112	1N6148	16.20	65	13.7	1	10	26.3	19.0	57.0	.085	100	400
1N6112A	1N6148A	17.10	65	13.7	1	10	25.1	19.9	59.8	.085	100	400
1N6113	1N6149	18.00	65	15.2	1	5	29.0	17.2	51.7	.085	100	400
1N6113A	1N6149A	19.00	65	15.2	1	5	27.7	18.0	54.2	.085	100	400
1N6114	1N6150	19.8	50	16.7	1	5	31.9	15.7	47.0	.085	100	400
1N6114A	1N6150A	20.9	50	16.7	1	5	30.5	16.4	49.2	.085	100	400
1N6115	1N6151	21.6	50	18.2	1	5	34.8	14.4	43.1	.09	100	400
1N6115A	1N6151A	22.8	50	18.2	1	5	33.3	15.0	45.0	.09	100	400
1N6116	1N6152	24.3	50	20.6	1	5	39.2	12.8	38.3	.09	100	400
1N6116A	1N6152A	25.7	50	20.6	1	5	37.4	13.4	40.1	.09	100	400

See footnotes at end of table.

TABLE II. Electrical characteristics for 500 W and 1,500 W series diodes (limits apply in both directions) - Continued.

Column 1		Column 2	Column 3	Column 4	Column 5		Column 6	Column 7		Column 8	Column 9	
Series type		V _{(BR)1} Breakdown voltage at I _(BR)	I _(BR) Test current	V _{RWM} Working peak reverse voltage	I _{D1} Maximum reverse current		V _C (max) Maximum clamping voltage at I _p t _p = 1 ms	I _p Maximum peak pulse current		α V _(BR) Maximum temp. Coeff. of V _(BR)	I _{D2} Maximum reverse current at T _A = +150°C	
500 W	1,500 W	Min V dc 1/	mA dc 1/	V dc 1/	μA dc 2/	μA dc 3/	V (pk) 1/	A (pk) 2/	A (pk) 3/	%/°C 1/	μA dc 2/	μA dc 3/
1N6117	1N6153	27.0	40	22.8	1	5	43.6	11.5	34.4	.09	100	400
1N6117A	1N6153A	28.5	40	22.8	1	5	41.6	12.0	36.0	.09	100	400
1N6118	1N6154	29.7	40	25.1	1	5	47.9	10.4	31.3	.095	100	400
1N6118A	1N6154A	31.4	40	25.1	1	5	45.7	10.9	32.8	.095	100	400
1N6119	1N6155	32.4	30	27.4	1	5	52.3	9.6	28.7	.095	100	400
1N6119A	1N6155A	34.2	30	27.4	1	5	49.9	10.0	30.1	.095	100	400
1N6120	1N6156	35.1	30	29.7	1	5	56.2	8.9	26.7	.095	100	400
1N6120A	1N6156A	37.1	30	29.7	1	5	53.6	9.3	28.0	.095	100	400
1N6121	1N6157	38.7	30	32.7	1	5	62.0	8.1	24.2	.095	100	400
1N6121A	1N6157A	40.9	30	32.7	1	5	59.1	8.5	25.4	.095	100	400
1N6122	1N6158	42.3	25	35.8	1	5	67.7	7.4	22.2	.095	100	400
1N6122A	1N6158A	44.7	25	35.8	1	5	64.6	7.7	23.2	.095	100	400
1N6123	1N6159	45.9	25	38.8	1	5	73.5	6.8	20.4	.095	100	400
1N6123A	1N6159A	48.5	25	38.8	1	5	70.1	7.1	21.4	.095	100	400
1N6124	1N6160	50.4	20	42.6	1	5	80.7	6.2	18.6	.095	100	400
1N6124A	1N6160A	53.2	20	42.6	1	5	77.0	6.5	19.5	.095	100	400
1N6125	1N6161	55.8	20	47.1	1	5	89.3	5.6	16.8	.100	100	400
1N6125A	1N6161A	58.9	20	47.1	1	5	85.3	5.9	17.6	.100	100	400
1N6126	1N6162	61.2	20	51.7	1	5	98.0	5.1	15.3	.100	100	400
1N6126A	1N6162A	64.6	20	51.7	1	5	97.1	5.1	15.4	.100	100	400
1N6127	1N6163	67.5	20	56.0	1	5	108.1	4.6	13.9	.100	100	400
1N6127A	1N6163A	71.3	20	56.0	1	5	103.1	4.8	14.5	.100	100	400
1N6128	1N6164	73.8	15	62.2	1	5	118.2	4.2	12.7	.100	100	400
1N6128A	1N6164A	77.9	15	62.2	1	5	112.8	4.4	13.3	.100	100	400
1N6129	1N6165	81.9	15	69.2	1	5	131.1	3.8	11.4	.100	100	400
1N6129A	1N6165A	86.5	15	69.2	1	5	125.1	4.0	12.0	.100	100	400
1N6130	1N6166	90.0	12	76.0	1	5	144.1	3.5	10.4	.100	100	400
1N6130A	1N6166A	95.0	12	76.0	1	5	137.6	3.6	10.9	.100	100	400
1N6131	1N6167	99.0	12	83.6	1	5	158.5	3.2	9.5	.100	100	400
1N6131A	1N6167A	104.5	12	83.6	1	5	151.3	3.3	9.9	.100	100	400

See footnotes at end of table.

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TABLE II. Electrical characteristics for 500 W and 1,500 W series diodes (limits apply in both directions) - Continued.

Column 1		Column 2	Column 3	Column 4	Column 5		Column 6	Column 7		Column 8	Column 9	
Series type		V _(BR) 1 Breakdown voltage at I _(BR)	I _(BR) Test current	V _{RWM} Working peak reverse voltage	I _{D1} Maximum reverse current		V _C (max) Maximum clamping voltage at I _p t _p = 1 ms	I _p Maximum peak pulse current		α V _(BR) Maximum temp. Coeff. of V _(BR)	I _{D2} Maximum reverse current at T _A = +150°C	
500 W	1,500 W	<u>Min V dc</u> 1/	<u>mA dc</u> 1/	<u>V dc</u> 1/	<u>μA dc</u> 2/	<u>μA dc</u> 3/	<u>V (pk)</u> 1/	<u>A (pk)</u> 2/	<u>A (pk)</u> 3/	<u>%/°C</u> 1/	<u>μA dc</u> 2/	<u>μA dc</u> 3/
1N6132	1N6168	108.0	10	91.2	1	5	172.9	2.9	8.7	.100	100	400
1N6132A	1N6168A	114.0	10	91.2	1	5	165.1	3.0	9.1	.100	100	400
1N6133	1N6169	117.0	10	98.8	1	5	187.3	2.7	8.0	.105	100	400
1N6133A	1N6169A	123.5	10	98.8	1	5	178.8	2.8	8.4	.105	100	400
1N6134	1N6170	135.0	8	114.0	1	5	216.2	2.3	6.9	.105	100	400
1N6134A	1N6170A	142.5	8	114.0	1	5	206.3	2.4	7.3	.105	100	400
1N6135	1N6171	144	8	121.6	1	5	228.8	2.2	6.6	.105	100	400
1N6135A	1N6171A	152	8	121.6	1	5	218.4	2.3	6.9	.105	100	400
1N6136	1N6172	162	5	136.8	1	5	257.4	1.9	5.8	.110	100	400
1N6136A	1N6172A	171	5	136.8	1	5	245.7	2.0	6.1	.110	100	400
1N6137	1N6173	180	5	152.0	1	5	286.0	1.7	5.2	.110	100	400
1N6137A	1N6173A	190	5	152.0	1	5	273.0	1.8	5.5	.110	100	400

1/ Applies to both 500 W and 1,500 W series.

2/ Applies to only 500 W series.

3/ Applies to only 1,500 W series.

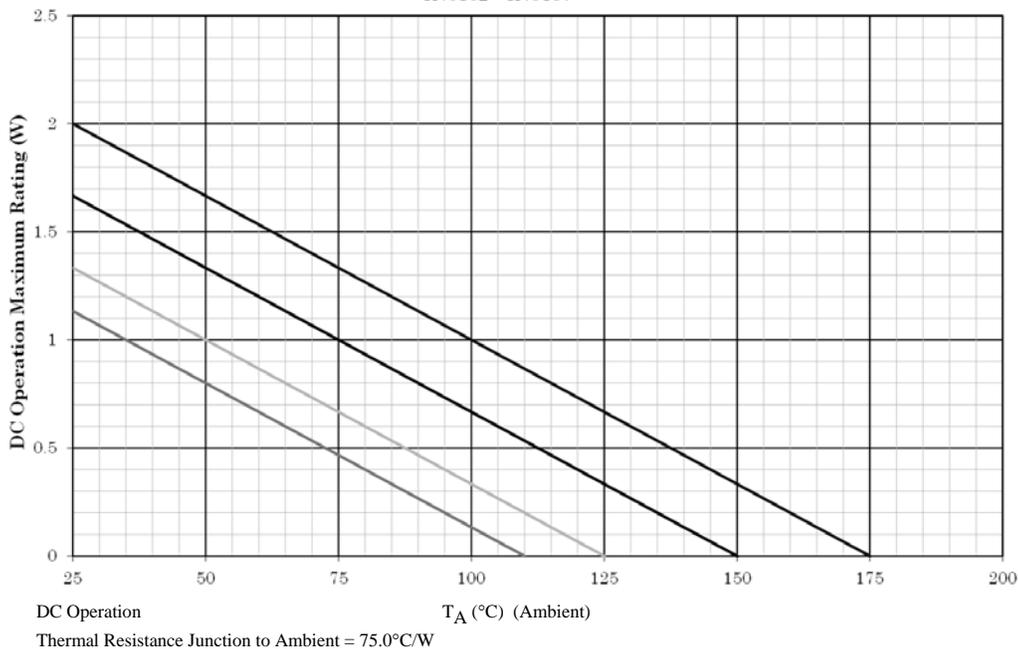
*

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

Inspection	MIL-STD-750		Sampling plan
	Method	Conditions	
<u>Subgroup 1</u>	1051	500 cycles, condition C, -55°C to +175°C. See table I , subgroup 2, performed twice, once in each direction.	45 devices, c = 0
Temperature cycling Electrical measurements			
<u>Subgroup 2</u>	1,000 hours. See 4.5.1 .	See table I , subgroup 2, performed twice, once in each direction.	45 devices, c = 0
Life test Electrical measurements			
<u>Subgroups 4, 5, and 6</u>			
Not applicable			
<u>Subgroup 8</u>			
Peak pulse current		See 4.5.3 . Ipp shall be characterized by the supplier and this data shall be available to the Government. Test shall be performed on each low and high voltage device for each structurally identical grouping. Test to failure. (See figure 10)	
Electrical measurements		See table I , subgroup 2, performed twice, once in each direction.	

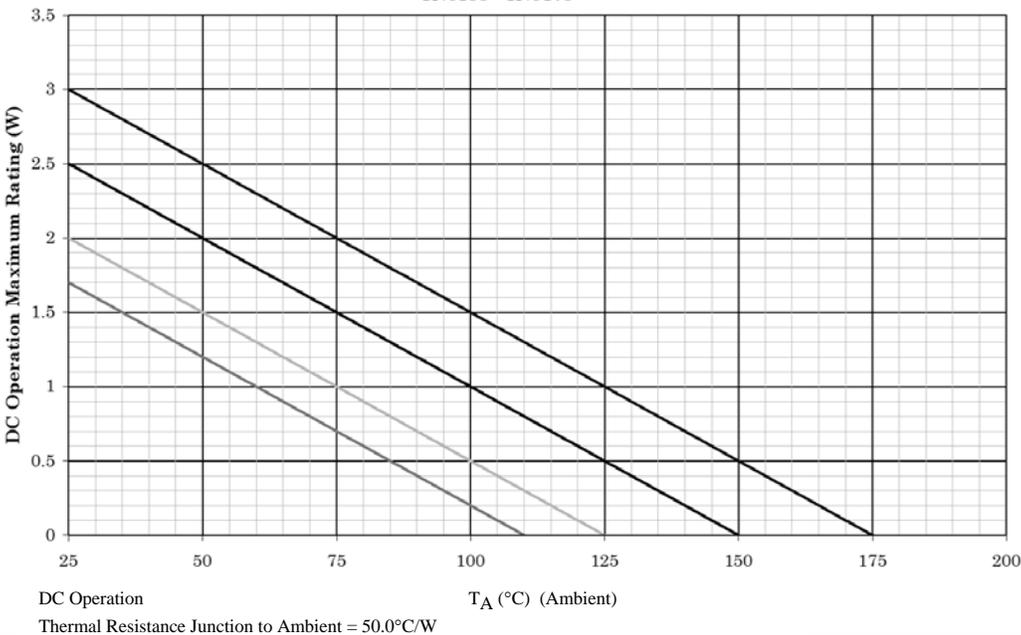
Temperature-Power Derating Curve

1N6102 - 1N6137



Temperature-Power Derating Curve

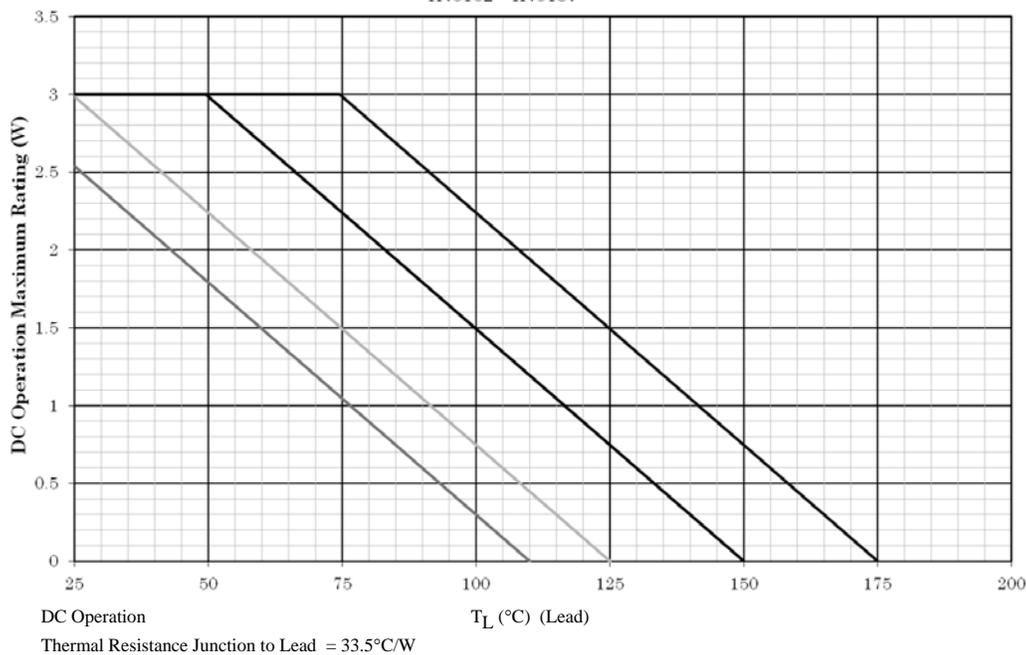
1N6138 - 1N6173



* FIGURE 6. Maximum power versus lead temperature (not applicable to JANHC/JANKC die).

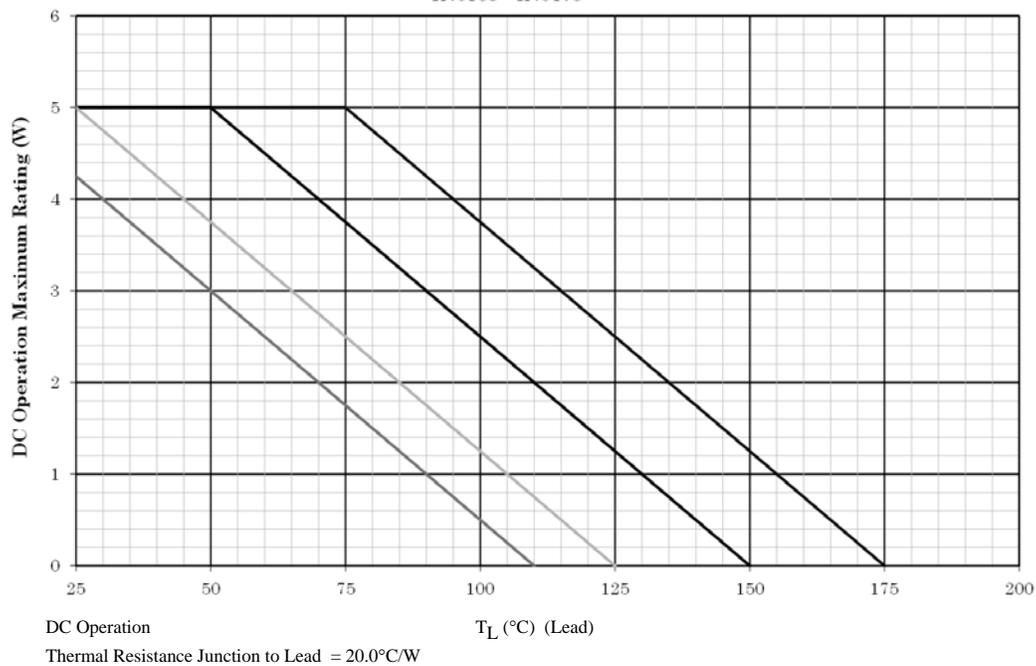
Temperature-Power Derating Curve

1N6102 - 1N6137



Temperature-Power Derating Curve

1N6138 - 1N6173



*

FIGURE 7. Maximum power versus lead temperature (not applicable to JANHC/JANKC die).

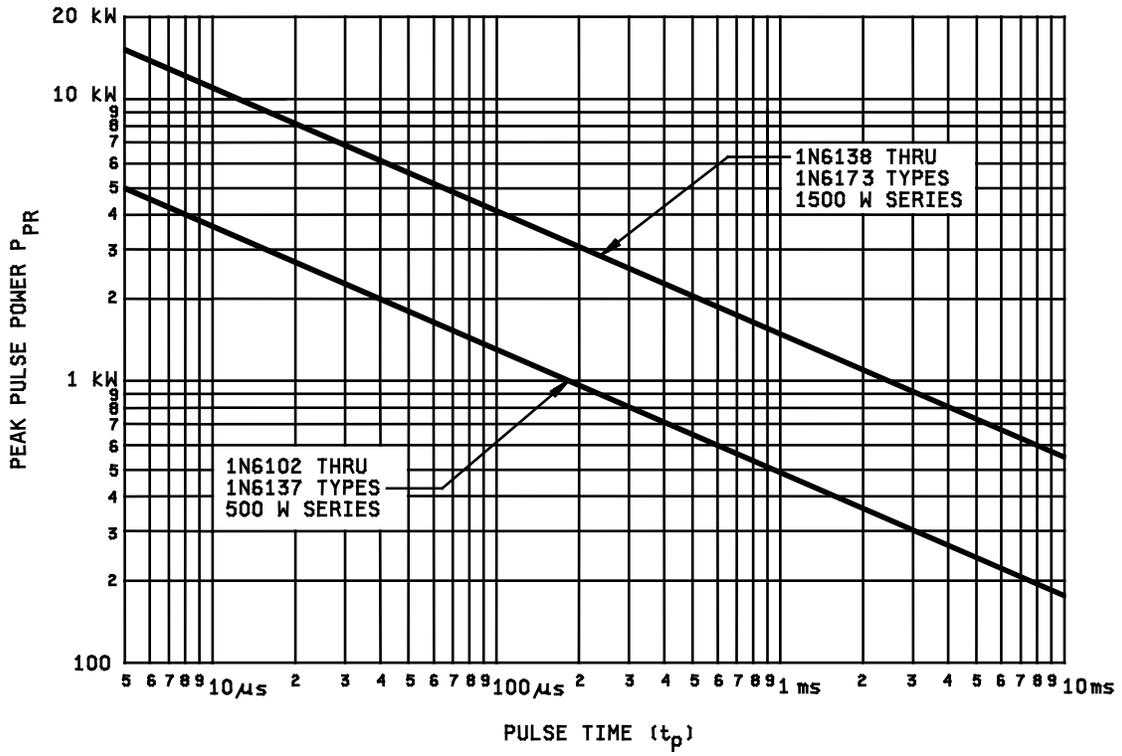


FIGURE 8. Peak pulse power versus pulse time.

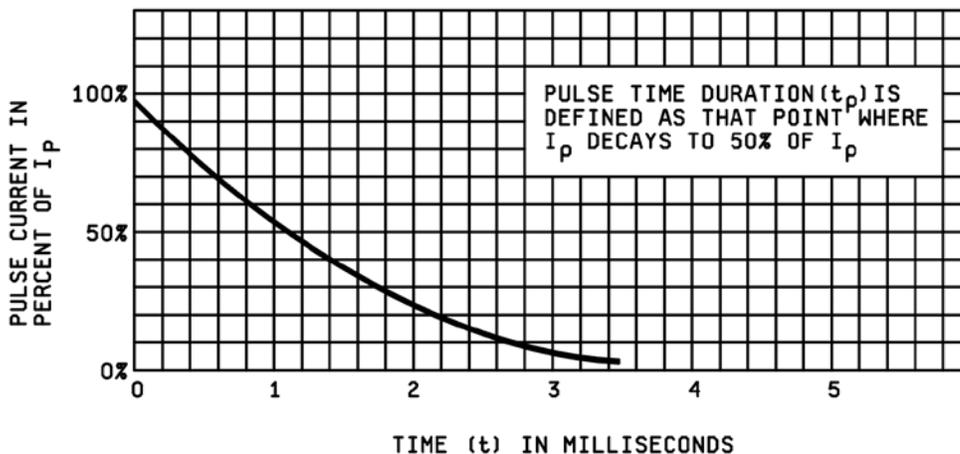
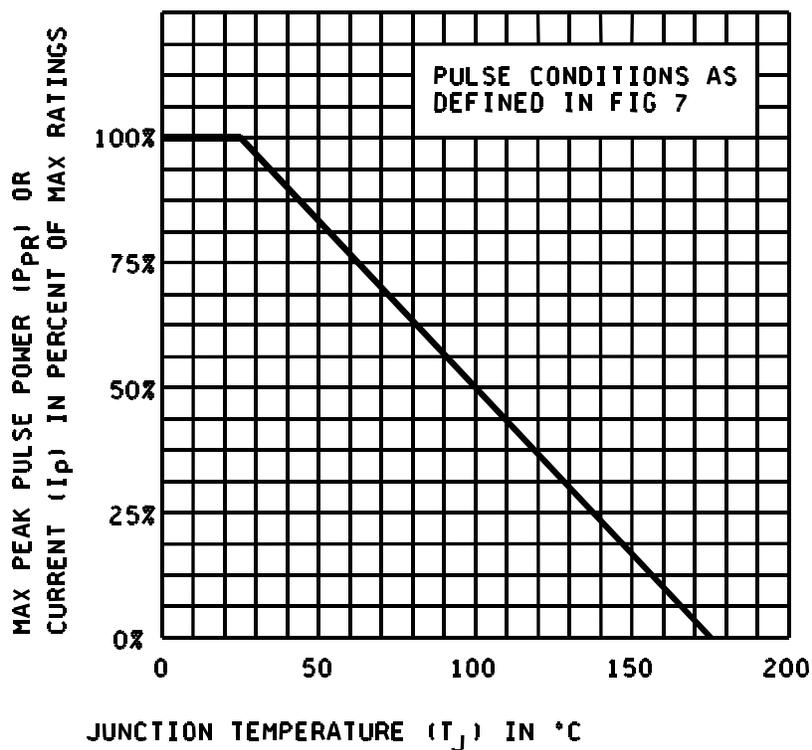


FIGURE 9. Pulse waveform.



The pulse derating curve of maximum peak pulse power versus junction temperature has been included for reference purposes only.

FIGURE 10. Pulse derating curve (not applicable to JANHC/JANKC die).

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the Military Service's system commands. 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.

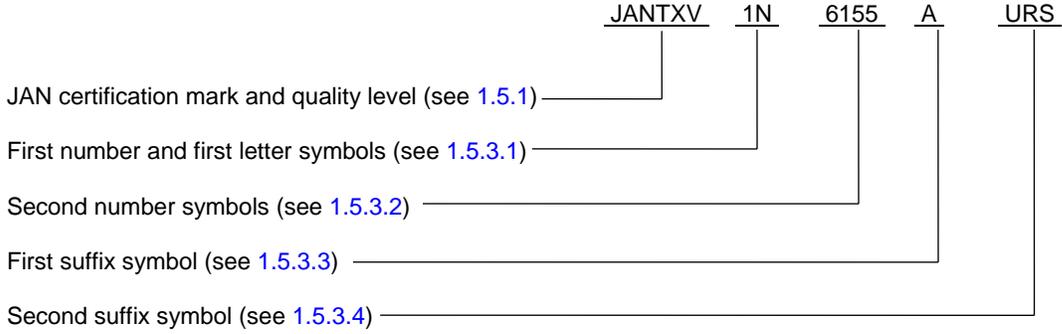
6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Packaging requirements (see 5.1).
- c. Lead finish (see [3.4.2](#)).
- * d. The complete PIN, see [1.5](#) and [6.5](#).
- e. Destructive physical analysis when requested.

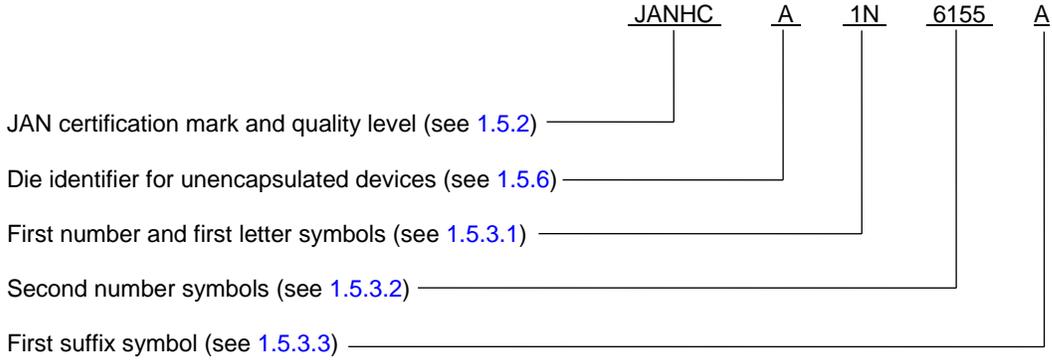
6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Manufacturers List (QML 19500) whether or not such products have actually been so listed by that date. The attention 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. 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 PIN construction example.

* 6.4.1 Encapsulated devices The PINs for encapsulated devices are constructed using the following form.



* 6.4.2 Unencapsulated devices. The PINs for un-encapsulated devices are constructed using the following form.



* 6.5 List of PINs.

* 6.5.1 List of PINs for encapsulated devices. The following is a list of possible PINs for encapsulated devices available on this specification sheet.

PINs for devices of the base quality level	PINs for devices of the "TX" quality level	PINs for devices of the "TXV" quality level	PINs for devices of the "S" quality level
JAN1N6102#\$ JAN1N6103#\$ JAN1N6104#\$ JAN1N6105#\$ JAN1N6106#\$	JANTX1N6102#\$ JANTX1N6103#\$ JANTX1N6104#\$ JANTX1N6105#\$ JANTX1N6106#\$	JANTXV1N6102#\$ JANTXV1N6103#\$ JANTXV1N6104#\$ JANTXV1N6105#\$ JANTXV1N6106#\$	JANS1N6102#\$ JANS1N6103#\$ JANS1N6104#\$ JANS1N6105#\$ JANS1N6106#\$
JAN1N6107#\$ JAN1N6108#\$ JAN1N6109#\$ JAN1N6110#\$ JAN1N6111#\$	JANTX1N6107#\$ JANTX1N6108#\$ JANTX1N6109#\$ JANTX1N6110#\$ JANTX1N6111#\$	JANTXV1N6107#\$ JANTXV1N6108#\$ JANTXV1N6109#\$ JANTXV1N6110#\$ JANTXV1N6111#\$	JANS1N6107#\$ JANS1N6108#\$ JANS1N6109#\$ JANS1N6110#\$ JANS1N6111#\$
JAN1N6112#\$ JAN1N6113#\$ JAN1N6114#\$ JAN1N6115#\$ JAN1N6116#\$	JANTX1N6112#\$ JANTX1N6113#\$ JANTX1N6114#\$ JANTX1N6115#\$ JANTX1N6116#\$	JANTXV1N6112#\$ JANTXV1N6113#\$ JANTXV1N6114#\$ JANTXV1N6115#\$ JANTXV1N6116#\$	JANS1N6112#\$ JANS1N6113#\$ JANS1N6114#\$ JANS1N6115#\$ JANS1N6116#\$
JAN1N6117#\$ JAN1N6118#\$ JAN1N6119#\$ JAN1N6120#\$ JAN1N6121#\$	JANTX1N6117#\$ JANTX1N6118#\$ JANTX1N6119#\$ JANTX1N6120#\$ JANTX1N6121#\$	JANTXV1N6117#\$ JANTXV1N6118#\$ JANTXV1N6119#\$ JANTXV1N6120#\$ JANTXV1N6121#\$	JANS1N6117#\$ JANS1N6118#\$ JANS1N6119#\$ JANS1N6120#\$ JANS1N6121#\$
JAN1N6122#\$ JAN1N6123#\$ JAN1N6124#\$ JAN1N6125#\$ JAN1N6126#\$	JANTX1N6122#\$ JANTX1N6123#\$ JANTX1N6124#\$ JANTX1N6125#\$ JANTX1N6126#\$	JANTXV1N6122#\$ JANTXV1N6123#\$ JANTXV1N6124#\$ JANTXV1N6125#\$ JANTXV1N6126#\$	JANS1N6122#\$ JANS1N6123#\$ JANS1N6124#\$ JANS1N6125#\$ JANS1N6126#\$
JAN1N6127#\$ JAN1N6128#\$ JAN1N6129#\$ JAN1N6130#\$ JAN1N6131#\$	JANTX1N6127#\$ JANTX1N6128#\$ JANTX1N6129#\$ JANTX1N6130#\$ JANTX1N6131#\$	JANTXV1N6127#\$ JANTXV1N6128#\$ JANTXV1N6129#\$ JANTXV1N6130#\$ JANTXV1N6131#\$	JANS1N6127#\$ JANS1N6128#\$ JANS1N6129#\$ JANS1N6130#\$ JANS1N6131#\$
JAN1N6132#\$ JAN1N6133#\$ JAN1N6134#\$ JAN1N6135#\$ JAN1N6136#\$	JANTX1N6132#\$ JANTX1N6133#\$ JANTX1N6134#\$ JANTX1N6135#\$ JANTX1N6136#\$	JANTXV1N6132#\$ JANTXV1N6133#\$ JANTXV1N6134#\$ JANTXV1N6135#\$ JANTXV1N6136#\$	JANS1N6132#\$ JANS1N6133#\$ JANS1N6134#\$ JANS1N6135#\$ JANS1N6136#\$

See footnotes at end of table.

* 6.5.1 List of PINs for encapsulated devices. Continued.

PINs for devices of the base quality level	PINs for devices of the "TX" quality level	PINs for devices of the "TXV" quality level	PINs for devices of the "S" quality level
JAN1N6137#\$ JAN1N6138#\$ JAN1N6139#\$ JAN1N6140#\$ JAN1N6141#\$	JANTX1N6137#\$ JANTX1N6138#\$ JANTX1N6139#\$ JANTX1N6140#\$ JANTX1N6141#\$	JANTXV1N6137#\$ JANTXV1N6138#\$ JANTXV1N6139#\$ JANTXV1N6140#\$ JANTXV1N6141#\$	JANS1N6137#\$ JANS1N6138#\$ JANS1N6139#\$ JANS1N6140#\$ JANS1N6141#\$
JAN1N6142#\$ JAN1N6143#\$ JAN1N6144#\$ JAN1N6145#\$ JAN1N6146#\$	JANTX1N6142#\$ JANTX1N6143#\$ JANTX1N6144#\$ JANTX1N6145#\$ JANTX1N6146#\$	JANTXV1N6142#\$ JANTXV1N6143#\$ JANTXV1N6144#\$ JANTXV1N6145#\$ JANTXV1N6146#\$	JANS1N6142#\$ JANS1N6143#\$ JANS1N6144#\$ JANS1N6145#\$ JANS1N6146#\$
JAN1N6147#\$ JAN1N6148#\$ JAN1N6149#\$ JAN1N6150#\$ JAN1N6151#\$	JANTX1N6147#\$ JANTX1N6148#\$ JANTX1N6149#\$ JANTX1N6150#\$ JANTX1N6151#\$	JANTXV1N6147#\$ JANTXV1N6148#\$ JANTXV1N6149#\$ JANTXV1N6150#\$ JANTXV1N6151#\$	JANS1N6147#\$ JANS1N6148#\$ JANS1N6149#\$ JANS1N6150#\$ JANS1N6151#\$
JAN1N6152#\$ JAN1N6153#\$ JAN1N6154#\$ JAN1N6155#\$ JAN1N6156#\$	JANTX1N6152#\$ JANTX1N6153#\$ JANTX1N6154#\$ JANTX1N6155#\$ JANTX1N6156#\$	JANTXV1N6152#\$ JANTXV1N6153#\$ JANTXV1N6154#\$ JANTXV1N6155#\$ JANTXV1N6156#\$	JANS1N6152#\$ JANS1N6153#\$ JANS1N6154#\$ JANS1N6155#\$ JANS1N6156#\$
JAN1N6157#\$ JAN1N6158#\$ JAN1N6159#\$ JAN1N6160#\$ JAN1N6161#\$	JANTX1N6157#\$ JANTX1N6158#\$ JANTX1N6159#\$ JANTX1N6160#\$ JANTX1N6161#\$	JANTXV1N6157#\$ JANTXV1N6158#\$ JANTXV1N6159#\$ JANTXV1N6160#\$ JANTXV1N6161#\$	JANS1N6157#\$ JANS1N6158#\$ JANS1N6159#\$ JANS1N6160#\$ JANS1N6161#\$
JAN1N6162#\$ JAN1N6163#\$ JAN1N6164#\$ JAN1N6165#\$ JAN1N6166#\$	JANTX1N6162#\$ JANTX1N6163#\$ JANTX1N6164#\$ JANTX1N6165#\$ JANTX1N6166#\$	JANTXV1N6162#\$ JANTXV1N6163#\$ JANTXV1N6164#\$ JANTXV1N6165#\$ JANTXV1N6166#\$	JANS1N6162#\$ JANS1N6163#\$ JANS1N6164#\$ JANS1N6165#\$ JANS1N6166#\$
JAN1N6167#\$ JAN1N6168#\$ JAN1N6169#\$ JAN1N6170#\$ JAN1N6171#\$ JAN1N6172#\$ JAN1N6173#\$	JANTX1N6167#\$ JANTX1N6168#\$ JANTX1N6169#\$ JANTX1N6170#\$ JANTX1N6171#\$ JANTX1N6172#\$ JANTX1N6173#\$	JANTXV1N6167#\$ JANTXV1N6168#\$ JANTXV1N6169#\$ JANTXV1N6170#\$ JANTXV1N6171#\$ JANTXV1N6172#\$ JANTXV1N6173#\$	JANS1N6167#\$ JANS1N6168#\$ JANS1N6169#\$ JANS1N6170#\$ JANS1N6171#\$ JANS1N6172#\$ JANS1N6173#\$

(1) The pound sign (#) represents the first suffix symbol (see 1.5.3.3). The dollar sign (\$) represents the second suffix symbol, see 1.5.3.4.

* 6.5.2 List of PINs for unencapsulated devices. The following is a list of possible PINs available on this specification sheet. The qualified die suppliers with the applicable letter version (e.g., JANHCA1N6102) will be identified on the QML.

JANC ordering information (1) (2)		
PIN (1)	Manufacturer CAGE	
	14552	14099
1N6102	JANHCA1N6102	JANHCB1N6102
1N6103	JANHCA1N6103	JANHCB1N6103
1N6104	JANHCA1N6104	JANHCB1N6104
1N6105	JANHCA1N6105	JANHCB1N6105
1N6106	JANHCA1N6106	JANHCB1N6106
1N6107	JANHCA1N6107	JANHCB1N6107
1N6108	JANHCA1N6108	JANHCB1N6108
1N6109	JANHCA1N6109	JANHCB1N6109
1N6110	JANHCA1N6110	JANHCB1N6110
1N6111	JANHCA1N6111	JANHCB1N6111
1N6112	JANHCA1N6112	JANHCB1N6112
1N6113	JANHCA1N6113	JANHCB1N6113
1N6114	JANHCA1N6114	JANHCB1N6114
1N6115	JANHCA1N6115	JANHCB1N6115
1N6116	JANHCA1N6116	JANHCB1N6116
1N6117	JANHCA1N6117	JANHCB1N6117
1N6118	JANHCA1N6118	JANHCB1N6118
1N6119	JANHCA1N6119	JANHCB1N6119
1N6120	JANHCA1N6120	JANHCB1N6120
1N6121	JANHCA1N6121	JANHCB1N6121
1N6122	JANHCA1N6122	JANHCB1N6122
1N6123	JANHCA1N6123	JANHCB1N6123
1N6124	JANHCA1N6124	JANHCB1N6124
1N6125	JANHCA1N6125	JANHCB1N6125
1N6126	JANHCA1N6126	JANHCB1N6126
1N6127	JANHCA1N6127	JANHCB1N6127
1N6128	JANHCA1N6128	JANHCB1N6128
1N6129	JANHCA1N6129	JANHCB1N6129
1N6130	JANHCA1N6130	JANHCB1N6130
1N6131	JANHCA1N6131	JANHCB1N6131
1N6132	JANHCA1N6132	JANHCB1N6132
1N6133	JANHCA1N6133	JANHCB1N6133
1N6134	JANHCA1N6134	JANHCB1N6134
1N6135	JANHCA1N6135	JANHCB1N6135
1N6136	JANHCA1N6136	JANHCB1N6136
1N6137	JANHCA1N6137	JANHCB1N6137
1N6138	JANHCA1N6138	JANHCB1N6138
1N6139	JANHCA1N6139	JANHCB1N6139
1N6140	JANHCA1N6140	JANHCB1N6140
1N6141	JANHCA1N6141	JANHCB1N6141

JANC ordering information (1) (2)		
PIN (1)	Manufacturer CAGE	
	14552	14099
1N6142	JANHCA1N6142	JANHCB1N6142
1N6143	JANHCA1N6143	JANHCB1N6143
1N6144	JANHCA1N6144	JANHCB1N6144
1N6145	JANHCA1N6145	JANHCB1N6145
1N6146	JANHCA1N6146	JANHCB1N6146
1N6147	JANHCA1N6147	JANHCB1N6147
1N6148	JANHCA1N6148	JANHCB1N6148
1N6149	JANHCA1N6149	JANHCB1N6149
1N6150	JANHCA1N6150	JANHCB1N6150
1N6151	JANHCA1N6151	JANHCB1N6151
1N6152	JANHCA1N6152	JANHCB1N6152
1N6153	JANHCA1N6153	JANHCB1N6153
1N6154	JANHCA1N6154	JANHCB1N6154
1N6155	JANHCA1N6155	JANHCB1N6155
1N6156	JANHCA1N6156	JANHCB1N6156
1N6157	JANHCA1N6157	JANHCB1N6157
1N6158	JANHCA1N6158	JANHCB1N6158
1N6159	JANHCA1N6159	JANHCB1N6159
1N6160	JANHCA1N6160	JANHCB1N6160
1N6161	JANHCA1N6161	JANHCB1N6161
1N6162	JANHCA1N6162	JANHCB1N6162
1N6163	JANHCA1N6163	JANHCB1N6163
1N6164	JANHCA1N6164	JANHCB1N6164
1N6165	JANHCA1N6165	JANHCB1N6165
1N6166	JANHCA1N6166	JANHCB1N6166
1N6167	JANHCA1N6167	JANHCB1N6167
1N6168	JANHCA1N6168	JANHCB1N6168
1N6169	JANHCA1N6169	JANHCB1N6169
1N6170	JANHCA1N6170	JANHCB1N6170
1N6171	JANHCA1N6171	JANHCB1N6171
1N6172	JANHCA1N6172	JANHCB1N6172
1N6173	JANHCA1N6173	JANHCB1N6173

- (1) Applies to "A" suffix versions also.
- (2) For JANKC level, replace "JANHC" prefix with "JANKC"

* 6.6 Request for new types and configurations. Requests for new device types or configurations for inclusions in this specification sheet should be submitted to: DLA Land and Maritime, ATTN: VAC, Post Office Box 3990, Columbus, OH 43218-3990 or by electronic mail at Semiconductor@dla.mil or by facsimile (614) 693-1642 or DSN 850-6939.

6.7 Changes from previous issue. The margins of this specification are marked with asterisks 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 previous issue.

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

Preparing activity:
DLA - CC

(Project 5961-2016-027)

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> .