INCH-POUND

MIL-PRF-19500/671
21 June 2000

PERFORMANCE SPECIFICATION

SEMICONDUCTOR DEVICE, DIODE, SILICON,
POWER RECTIFIER, COMMON CATHODE OR ANODE CENTER TAP,
TYPES 1N6828, 1N6828R, 1N6833, 1N6833R, 1N6828U3 and 1N6833U3 JAN, JANTX, JANTXV, 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, power rectifier. Four levels of product assurance are provided for each device types as specified in MIL-PRF-19500.

1.2 Physical dimensions. See figure 1 (TO-254AA isolated) , and figure 2 (SMD .5).

1.3 Maximum ratings.

Type	V_{RWM} (1)	I_O (1), (2), (3) (4) T_C = +110°C	I_{FSM} (1) T_C =+25 °C T_p = 8.3 ms	T_{STG}	T_J
	V	A dc	A (pk)	°C	°C
1N6828	100	15	250	-65 to +150	-65 to +150
1N6828R	100	15	250	-65 to +150	-65 to +150
1N6833	200	15	250	-65 to +150	-65 to +150
1N6833R	200	15	250	-65 to +150	-65 to +150
1N6828U3	100	15	250	-65 to +150	-65 to +150
1N6833U3	200	15	250	-65 to +150	-65 to +150

(1) Each individual diode.
(2) Derate linearly at 300 mA/°C from T_C = +150°C to +200 °C.
(3) Total package current is limited to 30 A dc.
(4) Derate linearly at 375 mA/°C from T_C = +110°C to +150 °C.

1.4 Primary electrical characteristics. Unless otherwise specified, primary electrical characteristics at T_A = +25°C.

Types	Max V_{FM1} I_{FM} = 5 A(pk)	Max V_{FM2} I_{FM}= 15 A(pk)	Max V_{FM3} I_{FM} = 30 A(pk)	Max I_{RM} @ V_{RWM} pulsed method (see 4.5.1)		Max C_J V_R = 10 V dc	Max $R_{\theta JC}$	Max $Z_{\theta JX}$
				T_J = +25°C I_{RM1}	T_J = +100°C I_{RM2}			
	V (pk)	V (pk)	V (pk)	µA	mA	pF	°C/W	°C/W
1N6828	0.86	1.1	1.37	15	1.5	220	2.3	2
1N6828R	0.86	1.1	1.37	15	1.5	220	2.3	2
1N6833	0.86	1.1	1.37	20	1.5	220	2.3	2
1N6833R	0.86	1.1	1.37	20	1.5	220	2.3	2
1N6828U3	0.86	1.1	1.37	15	1.5	220	2.3	2
1N6833U3	0.86	1.1	1.37	20	1.5	220	2.3	2

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

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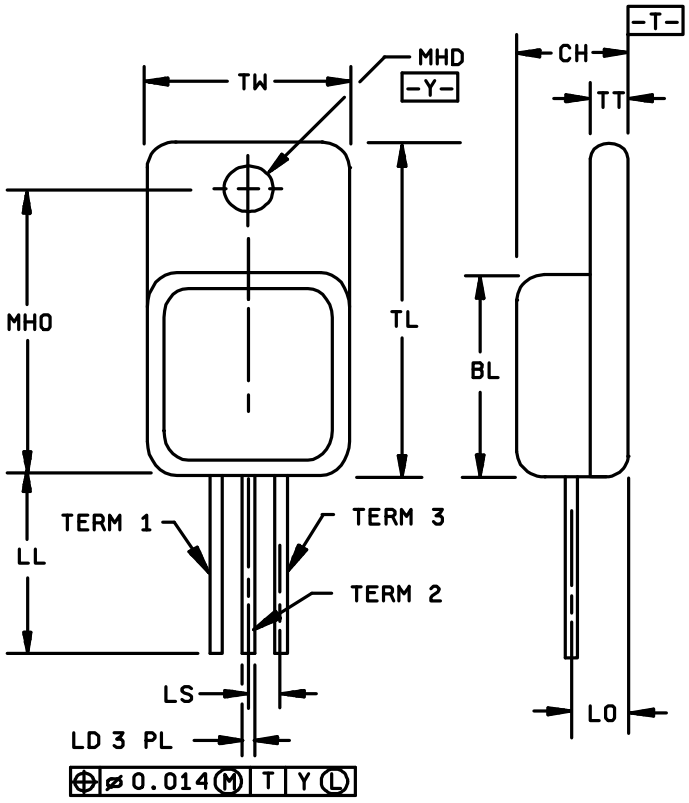
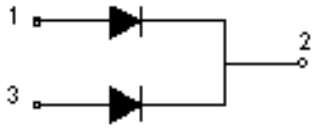


Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	.535	.545	13.59	13.89
CH	.249	.260	6.32	6.60
LD	.035	.045	0.89	1.14
LL	.500	.750	12.70	19.05
LO	.150 BSC		3.81 BSC	
LS	.150 TYP		3.81 TYP	
MHD	.139	.149	3.53	3.78
MHO	.665	.685	16.89	17.40
TL	.790	.800	20.07	20.32
TT	.040	.050	1.02	1.27
TW	.535	.545	13.59	13.84
Term 1	Drain			
Term 2	Source			
Term 3	Gate			

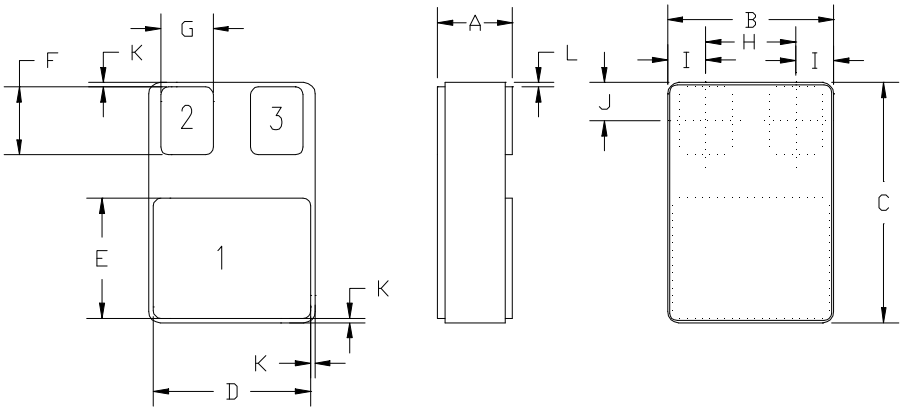
SCHEMATIC

1N6828 1N6833	Terminal 1 = Anode 1 Terminal 2 = Common Cathode 2 Terminal 3 = Anode 3
1N6828R 1N6833R	Terminal 1 = Cathode 1 Terminal 2 = Common Anode 2 Terminal 3 = Cathode 3



NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All terminals are isolated from case.
4. In accordance with ANSI Y14.5M, diameters are equivalent to ϕx symbology.

FIGURE 1. Physical dimensions (similar to TO-254AA).



Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.111	0.122	2.82	3.10
B	0.291	0.301	7.39	7.65
C	0.395	0.405	10.03	10.29
D	0.281	0.291	7.14	7.39
E	0.220	0.230	5.59	5.84
F	0.115	0.125	2.92	3.18
G	0.090	0.100	2.29	2.54
H	0.145	0.155	3.68	3.94
I	0.073 TYP.		1.85 TYP.	
J	0.083 TYP.		2.11 TYP.	
K	0.005 TYP.		0.13 TYP.	
L	0.015 TYP.		0.015 TYP.	

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Terminal 1 is cathode.
4. Terminal 2 and 3 is anode.

SCHEMATIC

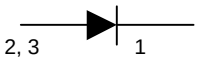


FIGURE 2. Physical dimensions and configuration (1N6828U3 and 1N6833U3, SMD.5).

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

DEPARTMENT OF DEFENSE

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

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Document Automation and Production Services (DAPS), Building 4D (NPM-DODSSP), 700 Robbins Avenue, 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 General. The requirements for acquiring the product described herein shall consist of this document and MIL-PRF-19500.

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

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

3.4 Interface requirements and physical dimensions. The interface requirements and physical dimensions shall be as specified in MIL-PRF-19500 and on figure 1 (TO-254AA) and figure 2 (SMD .5) herein. Methods used for electrical isolation of the terminal feedthroughs shall employ materials that contain a minimum of 90 percent Al2O3 (ceramic). Examples of such construction techniques are metallized ceramic eyelets or ceramic walled packages.

3.4.1 Lead formation and finish. Lead finish shall be in accordance with MIL-PRF-19500, MIL-STD-750, and herein. Where a lead finish or formation is desired, it shall be specified in the acquisition requirements (see 6.2).

3.4.2 Polarity. Polarity and terminal configuration shall be in accordance with figure 1 herein.

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

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

3.7 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table I herein.

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. VERIFIFICATION

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

a. Qualification inspection (see 4.2).

b. Screening (see 4.3)

c. Conformance inspection (see 4.4).

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

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

Screen (see table IV of MIL-PRF-19500)	Measurement		
	JANS level	JANTX and JANTXV levels	JAN level
3a	Temperature cycling	Temperature cycling	Temperature cycling in accordance with JANTX level MIL-PRF-1900.
3c (1)	Thermal impedance (see 4.5.2)	Thermal impedance (see 4.5.2)	Thermal impedance (see 4.5.2)
9	I_{RM1} and V_{FM2}	Not applicable	Not applicable
10 (2)	T_J = +150°C; V_R = 80% of rated V_R (See 1.3 for dc conditions). Or T_J=150°C, V_R=100% of rated V_{RRM} dc (see1.3) for half cycle sinusoidal. Method 1038, Cond. A. T = 48 hours min.	T_J = +150°C; V_R = 80% of rated V_R (See 1.3 for dc conditions). Or T_J = +150°C, V_R = 100% of rated V_{RRM} dc (see1.3) for half cycle sinusoidal. Method 1038, Cond. A. T = 48 hours min.	Not applicable
11	$\Delta I_{RM1} \leq$ 100 percent of initial reading or 70% I_{RM1} whichever is greater. $\Delta V_{FM2} \leq \pm$50 mV dc.	I_{RM1} and V_{FM2}	Not applicable
12	See 4.3.1 t = 240 hours min	See 4.3.1, t = 96 hours	Not applicable
12 a)	Alternative Screen may be substituted at the manufacturer's option combining from step 10 to 12 (see 4.3.1.) t = 240 hours min.	Alternative Screen may be substituted at the manufacturer's option combining from step 10 to 12 (see 4.3.1.) t = 96 hours min.	
13	Subgroup 2 and 3 of table I herein; $\Delta I_{RM1} \leq$ 100 percent of initial reading or 70% I_{RM1} whichever is greater; $\Delta V_{FM2} \leq \pm$50 mV dc.	Subgroup 2 of table I herein; $\Delta I_{RM1} \leq$ 100 percent of initial reading or 70% I_{RM1} whichever is greater; $\Delta V_{FM2} \leq \pm$50 mV dc.	Not applicable

(1) Thermal impedance shall be performed any time after sealing provided temperature cycling is performed in accordance with MIL-PRF-19500, screen 3 prior to this thermal impedance.

(2) Junction temperature (T_J) is not to exceed +150°C with V_{RWM}. T_J is affected by the device mounting thermal resistance when parasitic power is generated by the temperature dependent leakage current. Until this leakage becomes significant near thermal runaway, T_J remains approximately equal to T_A or T_L for I_O = 0.

4.3.1 Power burn-in conditions. Burn-in conditions are as follows:

T_J = +150°C, I_o = adjusted to achieve specified T_J. Forward Burn-In conditions may be AC, DC, or half cycle Sinusoidal I_o. I_o and V_R adjusted by manufacturer to achieve the T_J minimum requirement, (method 1038, cond. A).

Option 1 : Set T_J = Max operating temperature (+150°C) based on the rated thermal resistance and variability of V_F.

Option 2 : T_J = +150°C min, T_C = +100°C max, V_R =0.8 rated V_{RRM} dc (see1.3). Adjust dissipated power to insure that the minimum specified T_J is achieved.

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

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

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

4.4.1 Group A inspection. Group A inspection shall be conducted in accordance with MIL-PRF-19500, and table I herein. Thermal impedance $Z_{\theta JX}$ measurements shall be performed in accordance with MIL-STD-750, method 3101.

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

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

Subgroup	Method	Condition
B3	4066	I_{FSM} = 250 A; 10 surges of 8.3 ms each at 1 minute interval. Condition A, T_A = +25 °C; V_R = 0; I_O = 0.
B4	1036	Intermittent operation life for each diode is as follows: I_F or I_O = 2 A (minimum) $\Delta T_J \geq$ +85 °C, + 15 °C, - 5 °C for 2,000 cycles minimum.
B5	1038	Condition A, T_J = +150 °C, V_R at 80 percent of rated V_R.
B6		Not applicable.
B7	---	Peak reverse energy, see 4.5.3 and figure 3 herein. Test shall be performed on each sublot; Sampling plan = 10, c = 0.

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

Subgroup	Method	Condition
B2	4066	I_{FSM} = 250 A; 10 surges of 8.3 ms each at 1 minute interval. Condition A, T_A = +25 °C; V_R = 0; I_O = 0.
B3	1027	I_F or I_O = 2 A (minimum); $\Delta T_J \geq$ +85 °C, + 15 °C, - 5 °C for 2,000 cycles minimum.
B5		Not applicable.
B7	---	Peak reverse energy, see 4.5.3 and figure 3 herein. Test shall be performed on each sublot; Sampling plan = 10, c = 0.

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

Subgroup	Method	Condition
C2	2036	Tension: Test condition A, weight = 10 lbs, t = 15 seconds.
C6	1026	I_F or I_O = 2 A (minimum); $\Delta T_J \geq$ +85 °C, + 15 °C, - 5 °C for 6,000 cycles minimum.

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

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

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

4.5.2 Thermal resistance. Thermal resistance shall be measured as follows in accordance with method 3101. Each diode leg shall be measured.

a. I_M……10 mA

b. I_H……15-50 A

c. T_{MD}……100 µs maximum

d. $R_{\theta JC}$……2.3 °C/W

4.5.3 Peak reverse energy test. The peak reverse energy test is to be performed using the circuit as shown on figure 3 or equivalent. The rectifier under test must be capable of absorbing the reverse energy, as defined, below:

I_{RSM} = 2 A minimum, L = 260 µH
1N6828, 1N6828 R and 1N6828U3: V_{RSM} = 120 V minimum
1N6833, 1N6833 R and 1N6833U3: V_{RSM} = 240 V minimum

TABLE I. Group A inspection. 1/ 2/

Inspection	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
Subgroup 1						
Visual and mechanical inspection	2071					
Subgroup 2						
Thermal impedance	3101	See 4.4.1	$Z_{\theta JX}$		2	°C/W
Forward voltage	4011					
1N6828, 1N6828R, 1N6828U3		I_{FM} = 5 A (pk) pulsed (see 4.5.1)	V_{FM1}		0.86	V dc
1N6833, 1N6833R, 1N6833U3					0.86	V dc
1N6828, 1N6828R, 1N6828U3		I_{FM} = 10 A (pk) pulsed (see 4.5.1)	V_{FM2}		1	V dc
1N6833, 1N6833R, 1N6833U3					1	V dc
1N6828, 1N6828R, 1N6828U3		I_{FM} = 15 A (pk) pulsed (see 4.5.1)	V_{FM3}		1.1	V dc
1N6833, 1N6833R, 1N6833U3					1.1	V dc
1N6828, 1N6828R, 1N6828U3		I_{FM} = 20 A (pk) pulsed (see 4.5.1)	V_{FM4}		1.2	V dc
1N6833, 1N6833R, 1N6833U3					1.2	V dc
1N6828, 1N6828R, 1N6828U3		I_{FM} = 30 A (pk) pulsed (see 4.5.1)	V_{FM5}		1.37	V dc
1N6833, 1N6833R, 1N6833U3					1.37	V dc
Reverse current leakage	4016	DC method, (see 4.5.1.)	I_{RM1}			
1N6828, 1N6828R, 1N6828U3		V_R = 100 V dc			15	µA dc
1N6833, 1N6833R, 1N6833U3		V_R = 200 V dc			20	µA dc
Subgroup 3						
High temperature operation		T_A = +100°C				
Reverse current leakage	4016	DC method, pulsed (see 4.5.1)	I_{RM2}			
1N6828, 1N6828R, 1N6828U3		V_R = 100 V dc			1.5	mA dc
1N6833, 1N6833R, 1N6833U3		V_R = 200 V dc			1.5	mA dc
Low temperature operation:		T_A = -55°C				
Forward voltage	4011	Pulsed (see 4.5.1)	V_{FM6}			
		I_F = 10 A (pk)				
1N6828, 1N6828R, 1N6828U3					1.15	V dc
1N6833, 1N6833R, 1N6833U3						
Forward voltage	4011	Pulsed (see 4.5.1)	V_{FM7}			
		I_F = 15 A (pk)				
1N6828, 1N6828R, 1N6828U3					1.25	V dc
1N6833, 1N6833R, 1N6833U3					1.25	V dc

See footnotes at end of table.

TABLE I. Group A inspection - Continued. 1/ 2/

Inspection	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
Subgroup 4						
Capacitance	4001	V_R = 10 V dc; .01 ≤ f ≤ 1 MHz, V_{SIG} = 50 mV (p-p) (max)	C_J			
1N6828, 1N6828R, 1N6828U3					220	pF
1N6833, 1N6833R, 1N6833U3					220	pF
Subgroup 5						
Dielectric withstand	1016	V_R = 600 V dc; All leads shorted; measure current from leads to case.	D_{WV}		10	µA
Subgroup 6						
Surge	4066	Condition A, T_A = +25°C, I_{FSM} = 250 A, 25 surges of 8.3 ms each at 1 minute intervals. V_R = 0; I_O = 0				
Electrical measurements		See table I, group A, subgroup 2				
Subgroup 7						
Not applicable						

1/ For sampling plan, see MIL-PRF-19500.
2/ Each individual diode.

TABLE II. Group E inspection (all quality levels) for qualification only. 1/

Inspection	MIL-STD-750		Qualification Inspection
	Method	Conditions	
Subgroup 1			22 devices, c = 0
Thermal shock (temperature cycling)	1051	500 cycles. Condition C	
Hermetic seal	1071		
Electrical measurements		See table I, group A, subgroup 2	
Subgroup 2			22 devices, c = 0
Steady-state reverse bias	1038	Condition A, t = 1,000 hours, T_J = +150 °C; V_R = 80% of rated V_{RWM}	
Electrical measurements		See table I, group A, subgroup 2	
Subgroup 3			
Not applicable			
Subgroup 4			5 devices, c = 0
Thermal resistance	3101	See 4.5.2, $R_{\theta JC}$ = 2.3 °C/W	
Subgroups 5 and 6			
Not applicable			

1/ For initial design and process change verification only (one time testing).

TABLE III. Group B, C, and E, delta measurements 1/ 2/ 3/ 4/

Step	Inspection	MIL-STD-750		Symbol	Limits		Unit
		Method	Conditions		Min	Max	
1	Forward voltage	4011	I_F = 15 A (pk) pulsed	ΔV_{FM3}			
	1N6828, 1N6828R, 1N6828U3		(see4.5.1)			±50	mV
	1N6833, 1N6833R, 1N6833U3					±50	mV
2	Reverse current leakage	4016	pulsed (see4.5.1)	ΔI_{RM1}		70 % of I_{R1} or 100 % of initial reading, which ever is greater.	
	1N6828, 1N6828R, 1N6828U3		DC method				
	1N6833, 1N6833R, 1N6833U3		V_R = 100 V dc				
			V_R = 200 V dc				
3	Thermal impedance	3101	See 4.4.1	$Z_{\theta JX}$		2	°C/W

1/ Each individual diode.

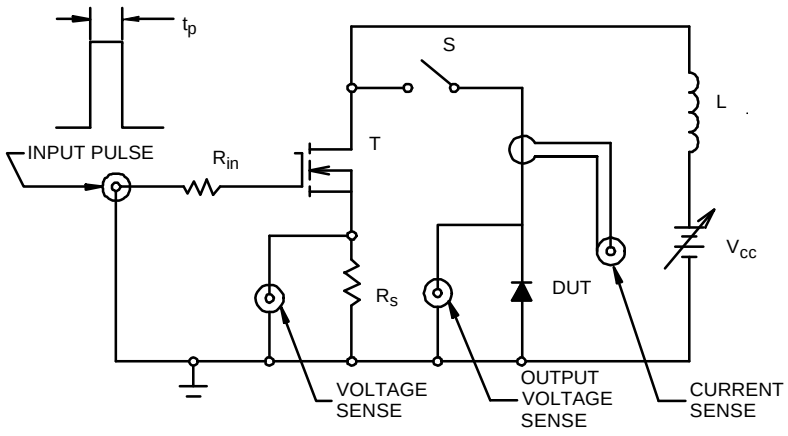
2/ The delta measurements for table VIa (JANS) of MIL-PRF-19500 are as follows:

a. Subgroup 4, see table III herein, steps 1, 2 and 3.

b. Subgroup5, see table III herein, steps 1 and 2

3/ The delta measurements for table VIb (JAN, JANTX, and JANTXV) of MIL-PRF-19500 are as follows: Subgroup 3, see table III herein, steps 1, 2, and 3.

4/ The delta measurements for table VII of MIL-PRF-19500 are as follows: Subgroup 6, see table III herein, steps 1, 2 and 3 for all levels.



Input pulse
V_G = 10 V
R_G = 50 ohms
P. W. ≈ 30 µs
Duty cycle ≤ 1 percent

R_{in} = 50 ohms, 1 watt
R_S = 0.1 ohms, 1 watt
V_{cc} ≈ 10 volts
L = 260 µH
T = IRF130 / 2N6756 or equivalent

PROCEDURES:

1. With S open, adjust pulse width to test current of 2 amps across RS.
2. Close S, verify test current with current sense.
3. Read peak output voltage (see 4.5.3).

FIGURE 3. Peak reverse energy test circuit.

5. PACKAGING

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

6. NOTES

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

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

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.

b. Issue of DODISS to be cited in the solicitation and, if required, the specific issue of individual documents referenced (see 2.2.1).

c. Lead finish (see 3.4.1).

d. Type designation and product assurance level.

e. Packaging requirements (see 5.1).

6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified 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 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, P.O. Box 3990, Columbus, Ohio, 43216-5000.

Custodians:
Army - CR
Navy - EC
Air Force -11
NASA - NA

Preparing activity:
DLA - CC

(Project 5961-2210)

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-19500/671	2. DOCUMENT DATE 21 June 2000

3. **DOCUMENT TITLE** SEMICONDUCTOR DEVICE, DIODE, SILICON, POWER RECTIFIER, COMMON CATHODE OR ANODE CENTER TAP, TYPES 1N6828, 1N6828R, 1N6833 and 1N6833R JAN, JANTX, JANTXV, 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

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@dscc.dla.mil
c. ADDRESS Defense Supply Center Columbus, ATTN: DSCC-VAC, 3990 East Broad Street, Columbus, OH 43213-1199	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Standardization Program Office (DLSC-LM) 8725 John J. Kingman, Suite 2533, Fort Belvoir, VA 22060-6221 Telephone (703) 767-6888 DSN 427-6888