This documentation process conversion measures necessary to comply with this revision shall be completed by 12 November, 1999

INCH-POUND

MIL-PRF-19500/430B
30 July 1999
SUPERSEDING
MIL-S-19500/430A
3 September 1993

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, DUAL FIELD EFFECT TRANSISTORS, N-CHANNEL, SILICON
TYPES 2N5545, 2N5546, AND 2N5547, JAN, JANTX, AND JANTXV

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 two electrically isolated, matched N-channel, junction, silicon field-effect transistors in one package. Three levels of product assurance are provided for each device type as specified in MIL-PRF-19500.

1.2 Physical dimensions. See figure 1 (similar to TO-71).

1.3 Maximum ratings. T_A = +25°C, unless otherwise specified.

P_T 1/ T_A = +25°C		V_{DG}	V_{GS}	I_G	T_{STG}
One section	Both sections				
mW	mW	V dc	V dc	mA dc	°C
250	400	50	-50	30	-65 to +200

1/ For T_A > +25°C, derate linearly 1.67 mW/°C one section, 2.67 mW/°C both sections.

1.4 Primary electrical characteristics. T_C = +25°C, unless otherwise specified.

Limits	I_{DSS} V_{GS} = 0 V_{DS} = 15 V dc	$V_{GS(off)}$ V_{DS} = 15 V dc I_D = 0.5 nA dc	$\|y_{fs}\|$ V_{DS} = 15 V dc V_{GS} = 0 f = 1 kHz	$\|y_{fs}\|$ V_{DS} = 15 V dc V_{GS} = 0 f = 100 MHz	Nf V_{DG} = 15 V dc I_D = 200 µA dc R_G = 1 MΩ f = 10 Hz		C_{iss} V_{DS} = 15 V dc V_{GS} = 0 f = 1 MHz	C_{rss} V_{DS} = 15 V dc V_{GS} = 0 f = 1 MHz
					2N5545 dB	2N5546 dB		
	mA dc	V dc	mmho	mmho			pF	pF
Min	0.5	-0.5	1.5	1.5				
Max	8.0	-4.5	6.0		3.5	5.0	6.0	2.0

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Defense Supply Center Columbus, ATTN: DSCC-VAC, 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.

	I_{DSS1} / I_{DSS2} V_{DG} = 15 V dc V_{GS} = 0			$\lvert y_{fs}\rvert_1$ / $\lvert y_{fs}\rvert_2$ V_{DG} = 15 V dc I_D = 200 μA dc f = 1 kHz			$\lvert V_{GS1} - V_{GS2}\rvert$ V_{DG} = 15 V dc I_D = 200 μA dc			$\lvert\Delta(V_{GS1} - V_{GS2})/\Delta T_A\rvert$ V_{DG} = 15 V dc I_D = 200 μA dc $T_{A(1)}$ = +25°C $T_{A(2)}$ = -55°C			$\lvert\Delta(V_{GS1} - V_{GS2})/\Delta T_A\rvert$ V_{DG} = 15 V dc I_D = 200 μA dc $T_{A(1)}$ = +25°C $T_{A(2)}$ = +125°C		
2N#	5545	5546	5547	5545	5546	5547	5545	5546	5547	5545	5546	5547	5545	5546	5547
							mV dc	mV dc	mV dc	mV dc	mV dc	mV dc	mV dc	mV dc	mV dc
Min	0.95	0.9	0.9	0.97	0.95	0.9									
Max	1.05	1.10	1.10	1.03	1.05	1.10	5	10	15	0.8	1.6	3.2	1	2	4

1/ Pulsed, (see 4.5.1).

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

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATION

DEPARTMENT OF DEFENSE

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

STANDARD

MILITARY

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

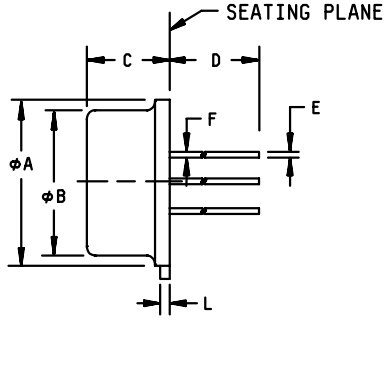
(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Defense Automated Printing Service, 700 Robbins Avenue, Building 4D (DPM-DODSSP), Philadelphia, PA 19111-5094.)

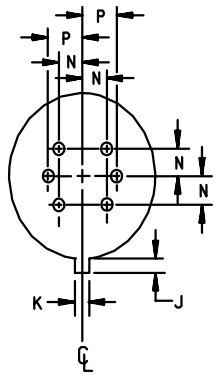
2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated specifications or specification sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations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

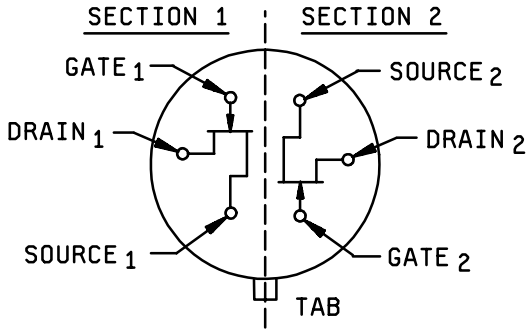
3. REQUIREMENTS

3.1 Qualification. Devices furnished under this specification shall be products that are authorized by the qualifying activity for listing on the applicable qualified products list before contract award (see 4.2 and 6.4).

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







CONNECTION DIAGRAM

Ltr	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
ϕA	.209	.230	5.31	5.84	
ϕB	.178	.195	4.52	4.95	
C	.170	.210	4.32	5.33	
D	.500	.750	12.70	19.05	
E		.021		0.53	3
F	.016	.019	0.41	0.48	4
J	.028	.048	0.71	1.22	7
K	.036	.046	0.91	1.17	
L		.020		0.51	
N	.0146 Nom.		.037 Nom.		5
P	.0354 Nom.		.90 Nom.		5

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Measured in the zone beyond .250 inch (6.35 mm) from the seating plane.
4. Measured in the zone from .50 inch (1.27 mm) to .250 inch (6.35 mm) from the seating plane.
5. When measured in a gauging plane .054 +.001, -.000 inch (1.37 -0.03, -0.00 mm) below the seating plane of the transistor, maximum diameter leads shall be within .007 inch (0.18 mm) of their true location relative to a maximum width tab. Smaller diameter leads shall fall within the outline of the maximum diameter lead tolerance.
6. All leads electrically insulated from case and each section electrically isolated from the other.
7. Measured from the maximum diameter of the actual device.

FIGURE 1. Physical dimensions (similar to T0-71).

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

$\frac{|I_{DSS1}|}{|I_{DSS2}|}$ ..... Zero-gate-voltage drain current ratio.

$|I_{G1} - I_{G2}|$ ..... Gate current differential.

$|V_{GS1} - V_{GS2}|$ ..... Gate - source voltage differential.

$|\Delta(V_{GS1} - V_{GS2})\Delta T_A|$ ..... Gate - source voltage differential change with temperature.

V_n ..... Equivalent short circuit input noise voltage for unity bandwidth.

$\frac{|y_{fs}|1}{|y_{fs}|2}$ ..... Small-signal common-source forward transfer admittance ratio.

$||y_{os}|1 - |y_{os}|2|$ ..... Small-signal common-source output admittance differential.

3.4 Interface requirements and physical dimensions. The Interface requirements and physical dimensions shall be as specified in MIL-PRF-19500, MIL-HDBK-6100, and herein.

3.4.1 Lead finish. Lead finish shall be solderable in accordance with 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.

3.6 Electrostatic discharge protection. The devices covered by this specification require electrostatic protection.

3.6.1 Handling. MOS devices must be handled with certain precautions to avoid damage due to the accumulation of electrostatic charge. The following handling practices shall be followed:

a. Devices shall be handled on benches with conductive handling devices.

b. Ground test equipment, tools, and personnel handling devices.

c. Do not handle devices by the leads.

d. Store devices in conductive foam or carriers.

e. Avoid use of plastic, rubber, or silk in MOS areas.

f. Maintain relative humidity above 50 percent, if practical.

g. Care shall be exercised, during test and troubleshooting, to apply not more than maximum rated voltage to any lead.

h. Gate must be terminated to source, $R \leq 100$ k, whenever bias voltage is to be applied drain to source.

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

3.8 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table 1 herein.

4. VERIFICATION

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

a. Qualification inspection (see 4.2).

b. Screening (see 4.3)

c. Conformance inspection (see 4.4).

4.2 Qualification inspection. Qualification inspection shall be in accordance with MIL-PRF-19500 and as specified herein.

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

Screen (see table IV of MIL-PRF-19500	Measurement
	JANTX and JANTXV levels
9	Not applicable
10	Not applicable
11	I_{DSS}, I_{GSS}, $\lvert y_{fs} \rvert$
12	See 4.3.1
13	Subgroup 2 of table I herein; ΔI_{GSS} = 0.1 nA dc or 100 percent of initial value, whichever is greater. $\lvert \Delta y_{fs} \rvert$ = ±20 percent of initial value. ΔI_{DSS} = 10 percent of initial value.

4.3.1 Power burn-in. Power burn-in conditions are in accordance with MIL-STD-750, method 1039, condition A and as follows:

T_A = +175°C; V_{GS} = -40 V dc; V_{DS} = 0.

4.4 Conformance inspection. Conformance inspection shall be in accordance with MIL-PRF-19500, and as specified herein. Alternate flow is allowed for quality conformance inspection in accordance with figure 4 of MIL-PRF-19500.

4.4.1 Group A inspection. Group A inspection shall be conducted in accordance with MIL-PRF-19500, and table I herein.

4.4.2 Group B inspection. Group B inspection shall be conducted in accordance with the conditions specified for subgroup testing in table VIb (JANTX and JANTXV) of MIL-PRF-19500, and as follows. Electrical measurements (end-points) and delta requirements shall be in accordance with the applicable steps of table II herein.

Subgroup	Method	Condition
B3	1027	V_{GS} = -40 V dc; T_A = +175°C; V_{DS} = 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 4.4.3.1 (JAN, JANTX, and JANTXV) herein for group C testing. 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 (JAN, JANTX, and JANTXV) of MIL-PRF-19500.

Subgroup	Method	Condition
C2	2036	Lead fatigue: Test condition E
C6	1027	V_{GS} = -40 V dc; T_A = +175°C; V_{DS} = 0

4.4.4 Gate current differential. The gate current of each individual section of a dual unit shall be measured at the specified conditions and the absolute value of the difference of the two currents shall be calculated. If possible, this difference should be measured directly to improve accuracy.

4.4.5 Gate - source voltage differential. The gate - source voltage of each individual section of a dual unit shall be measured at the specified conditions and the absolute value of the difference of the two voltages shall be calculated. If possible, this difference shall be measured directly to improve accuracy.

4.4.6 Gate - source voltage differential change with temperature. The gate - source voltage differential shall be measured at the two specified temperatures in accordance with 4.4.5 herein except that the polarities of the differentials and identities of the individual sections shall be maintained. The absolute value of the algebraic differences between the values at the two temperatures shall be calculated. If possible, this difference should be measured directly to improve accuracy. A mathematical formula for the parameter is:

$$|(V_{GS1} - V_{GS2})T_1 - (V_{GS1} - V_{GS2})T_2|$$

4.4.7 Zero-gate-voltage drain current ratio. The value for the zero-gate-voltage drain current for each individual section of a dual unit shall be measured using method 3413 of MIL-STD-750. The zero-gate-voltage drain current ratio shall be calculated by dividing one of the values by the other. If possible, this ratio should be measured directly to improve accuracy.

4.4.8 Small-signal common-source forward transfer admittance ratio. The magnitude for the small-signal common-source forward transfer admittance ratio for each individual section of a dual unit shall be measured using method 3455 of MIL-STD-750. The small-signal common-source forward transfer admittance ratio shall be calculated by dividing one of the values by the other. If possible, this ratio should be measured directly to improve accuracy.

4.4.9 Small-signal common-source output admittance differential. The magnitude for the small-signal common-source output admittance differential for each individual section of a dual unit shall be measured using method 3453 of MIL-STD-750. The small-signal common-source output admittance differential shall be calculated by dividing one of the values by the other. If possible, this ratio should be measured directly to improve accuracy.

4.4.10 Spot noise figure and equivalent input noise voltage. These tests should be conducted with a model 2173C Quan Tech Laboratories test set or equivalent. Conditions shall be as specified in table I.

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.

TABLE I. Group A inspection.

Inspection 1/	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
Subgroup 1 2/						
Visual and mechanical 3/ examination	2071	n = 45 devices, c = 0				
Subgroup 2						
Reverse gate current	3411	Bias condition C; V_{GS} = -50 V dc; V_{DS} = 0	I_{GSS1}		-1.0	μA dc
Reverse gate current	3411	Bias condition C; V_{GS} = -30 V dc; V_{DS} = 0	I_{GSS2}		-0.1	nA dc
Drain current	3413	Bias condition C; V_{DS} = 15 V dc; V_{GS} = 0	I_{DSS}	0.5	8.0	mA dc
Gate current		V_{DG} = 15 V dc I_D = 200 μA dc	I_G		-50	pA dc
Gate-source cutoff voltage	3403	V_{DS} = 15 V dc I_D = 0.5 nA dc	$V_{GS(off)}$	-0.5	-4.5	V dc
Gate-source voltage differential	3403	V_{DG} = 15 V dc; I_D = 50 μA dc; (see 4.4.4)	$\lvert V_{GS1} - V_{GS2} \rvert$			
2N5545					5	mV dc
2N5546					10	mV dc
2N5547					15	mV dc
Gate-source voltage differential	3403	V_{DG} = 15 V dc; I_D = 200 μA dc; (see 4.4.4)	$\lvert V_{GS1} - V_{GS2} \rvert$			
2N5545					5	mV dc
2N5546					10	mV dc
2N5547					15	mV dc

See footnote at end of table.

TABLE I. Group A inspection - Continued.

Inspection 1/	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
Subgroup 2 -continued						
Gate-source voltage differential change with temperature	3403	V_{DG} = 15 V dc; I_D = 200 μA dc; $T_{A(1)}$ = +25°C; $T_{A(2)}$ = -55°C; (see 4.4.5)	$\lvert\Delta(V_{GS1} - V_{GS2})\Delta T_A\rvert$			
2N5545					.8	mV dc
2N5546					1.6	mV dc
2N5547					3.2	mV dc
Subgroup 2 - Continued						
Gate-source voltage differential change with temperature	3403	V_{DG} = 15 V dc; I_D = 200 μA dc; $T_{A(1)}$ = +25°C; $T_{A(2)}$ = +125°C; (see 4.4.6)	$\lvert\Delta(V_{GS1} - V_{GS2})\Delta T_A\rvert$			
2N5545					1	mV dc
2N5546					2	mV dc
2N5547					4	mV dc
Zero-gate-voltage drain current ratio	3413	Bias condition C; V_{DS} = 15 V dc; V_{GS} = 0; (see 4.4.7)	$\frac{I_{DSS1}}{I_{DSS2}}$			
2N5545				0.95	1.05	
2N5546				0.90	1.10	
2N5547				0.90	1.10	
Small-signal common-source short-circuit forward transfer admittance ratio	3455	V_{DG} = 15 V dc; I_D = 200 μA dc; f = 1 kHz; (see 4.4.8)	$\frac{\lvert y_{fs}\rvert_1}{\lvert y_{fs}\rvert_2}$			
2N5545				0.97	1.03	
2N5546				0.95	1.05	
2N5547				0.90	1.10	
Small -signal common-source short-circuit, output admittance differential	3453	V_{DS} = 15 V dc; V_{GS} = 0; f = 1 kHz	$\lvert\lvert y_{os}\rvert_1 - \lvert y_{os}\rvert_2\rvert$			
2N5545					1	μmho
2N5546					2	μmho
2N5547					3	μmho
Subgroup 3						
High temperature operation:		T_A = +150°C	I_{GSS1}		-150	nA dc
Reverse gate current	3411	Bias condition C; V_{GS} = -30 V dc; V_{DS} = 0				
Gate current differential		V_{DG} = 15 V dc; I_D = 200 μA dc; T_A = +125°C; (see 4.4.4)	$\lvert I_{G1} - I_{G2}\rvert$		5	nA dc

See footnote at end of table.

TABLE I. Group A inspection - Continued.

Inspection 1/	MIL-STD-750		Symbol	Limits		Unit
	Method	Conditions		Min	Max	
Subgroup 4			$\|y_{fs}\|$	1.5	6.0	mmho
Small-signal common-source short-circuit forward transfer admittance	3455	V_{DS} = 15 V dc; V_{GS} = 0; 100 kHz ≤ f ≤ 1 MHz				
Small signal common-source short-circuit, output admittance	3453	V_{DS} = 15 V dc; V_{GS} = 0; 100 kHz ≤ f ≤ 1 MHz	$\|y_{os}\|$		25	μmho
Small signal common-source short-circuit, input capacitance	3431	V_{GS} = 0 V dc; V_{DS} = 15; 100 kHz ≤ f ≤ 1 MHz	C_{iss}		6	pF
Small signal common-source short-circuit, reverse transfer capacitance	3433	V_{GS} = 0 V dc; V_{DS} = 15; 100 kHz ≤ f ≤ 1 MHz	C_{rss}		2	pF
Spot noise figure (2N5545, 2N5546 only)		V_{DS} = 15 V dc; I_D = 200 μA dc; f = 10 Hz; R_G = 1 MΩ; Noise bandwidth = 5 Hz (see 4.4.10)	NF			
2N5545					3.5	dB
2N5546					5.0	dB
Equivalent input noise voltage		V_{DS} = 15 V dc; I_D = 200 μA dc; Noise bandwidth = 5 Hz (see 4.4.10)	V_n			
2N5545					180	$nV\sqrt{Hz}$
2N5546					200	$nV\sqrt{Hz}$
Subgroups 5 and 6						
Not applicable						
Subgroup 7						
Low temperature operation:		T_A = -65°C				
Magnitude of small-signal common-source short-circuit forward transfer admittance	3455	V_{DS} = 15 V dc; V_{GS} = 0; f = 1 kHz	$\|y_{fs}\|$		10.0	mmho

Notes:

1/ For sampling plan, see MIL-PRF-19500.
2/ For resubmission of failed subgroup A1, double the sample size of the failed test or sequence of tests.
3/ Separate samples may be used.
4/ Not required for JANS.
5/ Not required for laser marked devices.

TABLE II. Groups A, B, and C electrical end-point measurements. 1/ 2/

Step	Inspection	MIL-STD-750		Symbol	Limits		Unit
		Method	Conditions		Min	Max	
1.	Reverse gate current	3411	Bias condition C: V_{GS} = -30 V dc; V_{DS} = 0	I_{GSS}		-0.5	nA dc
2.	Magnitude of small-signal common-source short-circuit forward transfer admittance	3455	V_{DS} = 15 V dc V_{GS} = 0; f = 1 kHz	$\|y_{fs}\|$	1.5	6.0	mmho
3.	Reverse gate current	3411	Bias condition C; V_{GS} = -30 V dc; V_{DS} = 0	I_{GSS}		-1.0	nA dc
4.	Small-signal common-source short-circuit forward transfer admittance	3455	V_{DS} = 15 V dc; V_{GS} = 0; f = 1 kHz	$\Delta\|y_{fs}\|$	±20		percent change from initial group A reading
5.	Gate-source voltage differential	3403	V_{DG} = 15 V dc; I_D = 200 μA dc	$\|V_{GS1} - V_{GS2}\|$			
	2N5545					6	mV dc
	2N5546					12	mV dc
	2N5547					18	mV dc
6.	Zero-gate-voltage drain current ratio	3413	Bias condition C; V_{DG} = 15 V dc; V_{GS} = 0	$\frac{I_{DSS1}}{I_{DSS2}}$			
	2N5545				0.95	1.05	
	2N5546				0.90	1.10	
	2N5547				0.90	1.10	

1/ The electrical measurements for table VIb (JAN, JANTX, JANTXV) of MIL-PRF-19500 are as follows:

a. Subgroup 2, see table II herein, steps 1 and 2.

b. Subgroups 3 and 6, see table II herein, steps 3, 4, 5, and 6.

2/ The electrical measurements for table V of MIL-PRF-19500 are as follows:

Subgroups 2, 3, and 6, see table II herein, steps 3, 4, 5, and 6.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Points' packaging activity within the Military Department or Defense Agency, or within the Military Departments' System Command. Packaging data retrieval is available from the managing Military Departments' or Defense 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 Notes. The notes specified in MIL-PRF-19500 are applicable to this specification.

6.2 Acquisition requirements. Acquisition documents should specify the following:

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

b. Lead finish as specified (see 3.4.1).

c. Type designation and product assurance level.

d. Packing requirements (see 5.1)

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

6.4 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 Manufacturer 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, 3990 East Broad Street, Columbus, OH 43216-5000.

Custodians:
Army - CR
Air Force - 11
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Review activities:
Army - MI
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Preparing activity:
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(Project 5961-2159)

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-19500/430B	**2. DOCUMENT DATE (YYMMDD)** 990712

3. DOCUMENT TITLE SEMICONDUCTOR DEVICE, DUAL FIELD EFFECT TRANSISTORS, N-CHANNEL, SILICON, TYPES 2N5545, 2N5546, AND 2N5547, JAN, JANTX, AND JANTXV

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

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) DSN (If applicable) (3) E-Mail	7. DATE SUBMITTED (YYMMDD)

8. PREPARING ACTIVITY

a. NAME Alan Barone	b. TELEPHONE (Include Area Code) (1) Commercial 614-692-0510	(2) DSN 850-0510	(3) E-Mail alan_barone@dscc.dla.mil
c. ADDRESS (Include Zip Code) Defense Supply Center Columbus ATTN: DSCC-VAC Columbus, OH 43216-5000	**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:** Defense Standardization Program Office (DLSC-LM) 8725 John J. Kingman Road, Suite 2533, Fort Belvoir, Virginia 22060-6221 Telephone (703) 767-6888 DSN 427-6888		

DD Form 1426, FEB 99 (EG) Previous editions are obsolete 198/290