PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, FIELD EFFECT RADIATION HARDENED (TOTAL DOSE CHARACTERIZATION ONLY) TRANSISTOR, P-CHANNEL SILICON TYPE 2N7445T1
JANSD, R

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 a P-Channel, enhancement-mode, MOSFET, radiation hardened (total dose characterization only), power transistor. One level of product assurance is provided for each device type as specified in MIL-PRF-19500.

1.2 Physical dimensions. See figure 1, similar TO-254.

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

Type	P_T 1/ T_C = +25°C	V_{DS}	V_{DG}	V_{GS}	I_{D1} 2/ T_C =+25°C	I_{D2} T_C = +100°C	I_S 2/	I_{DM}	T_J and T_{STG}	V_{ISO} 70,000 ft. altitude
	W	V dc	V dc	V dc	A dc	A dc	A dc	A (pk)	°C	V dc
2N7445T1	125	-60	-60	±20	62.0	39.0	62.0	186	-55 to +150	N/A

1/ Derate linearly 1.20 W/°C for T_C > +25°C; $P_T = (T_{jmax} - T_C)/R_{\theta JC}$

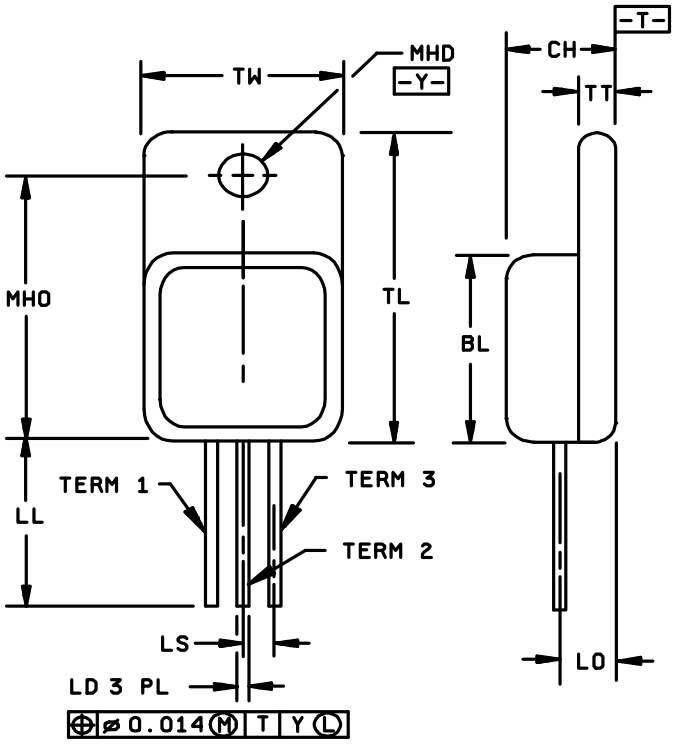
2/ $I_D = ((T_{jmax} - T_C)/((R_{\theta JC})X (r_{DS(on)} \text{ at } T_{jmax})))^{1/2}$

1.4 Primary electrical characteristics at T_C = +25°C.

Type	Min $V_{(BR)DSS}$ V_{GS} = 0V I_D = 1.0 mA dc	$V_{GS(TH)1}$ $V_{DS} = V_{GS}$ I_D = 1.0 mA dc	Max I_{DSS1} V_{GS} = 0 V_{GS} = 80% of rated V_{DS}	Max $r_{DS(on)}$ 1/ V_{GS} = -12V		$R_{\theta JC}$ Max	$I_{AS} = I_{DM}$
				T_J = 25°C at I_{D2}	T_J = 125°C at I_{D2}		
	V dc	V dc Min Max	µA dc	Ω	Ω	°C/W	A (pk)
2N7445T1	-60	-2.0 -6.0	25	0.023	0.035	0.83	186

1/ Pulsed (see 4.5.1).

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



Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	.530	.550	13.46	13.97
CH	.249	.260	6.32	6.60
LD	.035	.045	0.89	1.14
LL	.520	.560	13.21	14.22
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			

NOTES:
1. Controlling dimensions: Inch.
2. Metric Equivalents are given for information only.
3. All terminals are isolated from case.
4. Die to base is BeO isolated, terminals to case ceramic (AL_2O_3) isolated.
5. In accordance with ANSI Y14.5M, diameters are equivalent to ϕx symbology.

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

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

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

3.3 Interface requirements and physical dimensions. The Interface requirements and physical dimensions shall be as specified in MIL-PRF-19500, and herein. Nominal weight percent of lead material shall be 99.80% copper (Cu) and 0.20% zirconium (Zr)

3.3.1 Lead finish. Lead finish shall be solderable as defined in 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).

3.4 Marking. Marking shall be in accordance with MIL-PRF-19500. At the option of the manufacturer, marking of the country of origin may be omitted from the body of the transistor but shall be retained on the initial container.

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

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

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

3.7.1 Handling. MOS devices must be handled with certain precautions to avoid damage due to the accumulation of static charge. However, the following handling practices are recommended:

a. Devices should 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 should be exercised during test and troubleshooting to apply not more than maximum rated voltage to any lead.
h. Gate must be terminated to source, $R \leq$ or 100 KΩ, whenever bias voltage is applied drain to source.

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

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.

4.2.1 Group E inspection. Group E inspection shall be conducted in accordance with the conditions specified for subgroup testing in table IX of MIL-PRF-19500, and table III herein. Electrical measurements (end-points) shall be in accordance with table I, group A, subgroup 2 herein. Delta V_{SD} measurements shall be in accordance with table IV herein.

4.3 Screening (JANS 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
	JANS
1/	Method 3470, E_{AS} test (see 4.5.4)
1/	Method 3161 (see 4.5.3)
1/	Gate stress test (see 4.5.5)
2/	Subgroup 2 of table I herein
9	I_{DSS1} , I_{GSS} as a minimum
10	MIL-STD-750, method 1042 test condition B
11	I_{GSSF1}, I_{GSSR1}, I_{DSS1}, $r_{DS(ON)}$, $V_{GS(TH)}$ Subgroup 2 of table I herein. ΔI_{GSSF1} = ±20 nA dc or ±100% of initial value, whichever is greater. ΔI_{GSSR1} = ±20 nA dc or ±100% of initial value, whichever is greater. ΔI_{DSS1} = ±25 µA dc or ±100% of initial value, whichever is greater.
12	MIL-STD-750, method 1042 test condition A
13	Subgroups 2 and 3 of table I herein. ΔI_{GSSF1} = ±20 nA dc or ±100% of initial value, whichever is greater. ΔI_{GSSR1} = ±20 nA dc or ±100% of initial value, whichever is greater. ΔI_{DSS1} = ±25µA dc or ±100% of initial value, whichever is greater. $\Delta r_{DS(ON)1}$ = ±20% of initial value. $\Delta V_{GS(TH)1}$ = ±20% of initial value.

1/ Shall be performed anytime before screen 10.
2/ Shall be performed after E_{AS} test, method 3161, and gate stress test.

4.4 Conformance inspection. Conformance inspection shall be in accordance with MIL-PRF-19500.

4.4.1 Group A inspection. Group A inspection shall be conducted in accordance with table V of 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 VIa (JANS) and as follows. Electrical measurements (end-points) shall be in accordance with table I, group A, subgroup 2 herein. Delta V_{SD} measurements shall be in accordance with table IV herein.

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

Subgroup	Method	Condition
3	1051	Test condition G, 100 cycles
3	2077	SEM
4	1042	Intermittent operation life, condition D, 2,000 cycles. No heat sink nor or forced-air cooling on the device shall be permitted during the on cycle. T_{on} = 30 seconds minimum.
5	1042	Accelerated steady-state reverse bias, condition A, V_{DS} = rated; T_A = +175°C; t = 120 hours, min.
5	1042	Accelerated steady-state gate bias, condition B, V_{GS} = rated; T_A = +175°C; t = 24 hours, min.
6	3161	Thermal resistance, see 4.5.2.

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 V_{SD} measurements shall be in accordance with table IV herein.

Subgroup	Method	Condition
2	2036	Terminal strength, test condition A, weight = 10 lbs., 15 sec.
6	1042	Test condition D, 6,000 cycles; 1 cycle = 30 sec. min. No heat sink nor or forced-air cooling on the device shall be permitted during the on cycle. T_{on} = 30 seconds minimum.

4.4.4 Group D inspection. Group D inspection shall be conducted in accordance with table VIII of MIL-PRF-19500 and table II 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 measurements shall be performed in accordance with method 3161 of MIL-STD-750. The maximum limit of $R_{\theta JC}$ = 0.83 °C/W. The following parameters shall apply:

a. Measuring current(I_M)..... 10 mA
b. Drain heating current (I_H)..... 4 A
c. Heating time (t_H)..... Steady-state (see MIL-STD-750, method 3161)
d. Drain-source heating voltage (V_H)..... -20 V
e. Measurement time delay (t_{MD})..... 30 to 60 µs
f. Sample window time (t_{SW})..... 10 µs maximum

TABLE I. Group A inspection

Inspection 1/	MIL-STD-750		Symbol	Limits		Units
	Method	Conditions		Min	Max	
Subgroup 1						
Visual and mechanical inspection	2071					
Subgroup 2						
Breakdown voltage drain to source	3407	V_{GS} = 0V, I_D = 1 mA dc, Bias condition C	$V_{(BR)DSS}$	-60		V dc
Gate to source voltage (threshold)	3403	$V_{DS} = V_{GS}$, I_D = 1 mA dc	$V_{GS(TH)1}$	-2.0	-6.0	V dc
Gate current	3411	V_{GS} = ±20V dc, Bias condition C, V_{DS} = 0V	I_{GSS1}		±100	nA dc
Drain current	3413	V_{GS} = 0V dc, Bias condition C, V_{DS} = 80 % of rated V_{DS},	I_{DSS1}		25	µA dc
Static drain to source "ON" state resistance	3421	V_{GS} = -12V dc, condition A, Pulsed (see 4.5.1), $I_D = I_{D2}$	$r_{DS(ON)1}$		0.023	Ω
Static drain to source "ON" state voltage	3405	V_{GS} = -12V dc, condition A, Pulsed (see 4.5.1), $I_D = I_{D1}$	$V_{DS(ON)1}$		-1.55	V dc
Forward voltage	4011	V_{GS} = 0V dc, condition A, pulsed (see 4.5.1), $I_D = I_{D1}$	V_{SD}		-1.8	V dc
Subgroup 3						
High temperature operation		$T_C = T_J$ = +125°C				
Gate current	3411	V_{GS} = ±20V dc, Bias condition C, V_{DS} = 0V	I_{GSS2}		±200	nA dc
Drain current	3413	V_{GS} = 0V dc, Bias condition C, V_{DS} = 80 % of rated V_{DS},	I_{DSS2}		0.25	mA dc
Static drain to source "ON"-state resistance	3421	V_{GS} = -12V dc, condition A, Pulsed (see 4.5.1), $I_D = I_{D2}$	$r_{DS(ON)2}$		0.035	Ω
Gate to source voltage (threshold)	3403	$V_{DS} = V_{GS}$, I_D = 1 mA dc	$V_{GS(TH)2}$	-1.0		V dc
Low temperature operation		$T_C = T_J$ = -55°C				
Gate to source voltage (threshold)		$V_{DS} = V_{GS}$, I_D = 1 mA dc	$V_{GS(TH)3}$		-7.0	V dc

See footnotes at end of table.

TABLE I. Group A inspection - Continued

Inspection 1/	MIL-STD-750		Symbol	Limits		Units
	Method	Conditions		Min	Max	
Subgroup 4						
Switching time test	3472	$I_D = I_{D1}$, V_{GS} = -12 V dc, R_{GS} = 2.35 Ω, V_{DD} = 50% of rated V_{DS}				
Turn-on delay time			$t_{D(on)}$		50	ns
Rise Time			$t_{r.}$		120	ns
Turn-off delay time			$t_{D(off)}$		100	ns
Fall time			t_f		40	ns
Subgroup 5						
Safe operating area test (high voltage)	3472	See figure 3, t_p = 10 ms min. V_{DS} = 80% of max. rated V_{DS} ($V_{DS} \leq 200$ V)				
Electrical measurements		See table I, group A, subgroup 2 herein.				
Subgroup 6						
Not applicable						
Subgroup 7						
Gate charge	3471	Condition A or B				
On-state gate charge			$Q_{G(ON)}$		190	nC
Gate to source charge			Q_{GS}		71	nC
Gate to drain charge			Q_{GD}		46	nC
Reverse recovery time	3473	di/dt = 100 A/µs, $V_{DD} \leq 50$ V, I_D = 59A	t_{rr}		120	ns

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

Table II. Group D Inspection

Inspection 1/, 2/, 3/, 4/	MIL-STD-750		Symbol	Pre-irradiation limits		Post irradiation limits		Units
	Method	Conditions		Min.	Max.	Min.	Max.	
Subgroup 1		T_C = +25°C						
Not Applicable								
Subgroup 2								
Steady state total dose irradiation (V_{GS} bias)	1019	V_{GS} = -12V, V_{DS} = 0V						
Steady state total dose irradiation (V_{DS} bias)	1019	V_{GS} = 0V, V_{DS} = 80% of rated V_{DS}						
Breakdown voltage drain to source	3407	V_{GS} = 0V, I_D = 1 mA dc, Bias condition C	$V_{(BR)DSS}$	-60		-60		V dc
Gate to source voltage (threshold)	3403	V_{DS} = V_{GS}, I_D = 1 mA dc	$V_{GS(TH)1}$	-2.0	-6.0	-2.0	-6.0	V dc
Gate current	3411	V_{GS} = ±20V dc, V_{DS} = 0V, Bias condition C	I_{GSS1}		±100		±100	nA dc
Drain current	3413	V_{GS} = 0V, V_{DS} = 80% of rated V_{DS}, Bias condition C	I_{DSS1}		25		25	µA dc
Static drain to source "ON"-state resistance	3421	V_{GS} = -12V dc, condition A, pulsed (see4.5.1), I_D = 41 A	$r_{DS(ON)3}$		0.023		0.023	Ω
Static drain to source "ON"-state voltage	3405	V_{GS} = -12V dc, condition A, Pulsed (see 4.5.1), I_D = 64 A	$V_{DS(ON)2}$		-1.6		-1.6	V dc

1/ For sampling plan see MIL-PRF-19500.
2/ Electrical specifications are for 'D' and 'R' rad levels.
3/ Group D qualification may be performed prior to lot formation. Wafers qualified to these group D QCI requirements may be used for any other detail specification utilizing the same die design.
4/ At the manufacturer's option, group D samples need not be subjected to all the screening tests, but shall be assembled in its qualified package or in any qualified package that the manufacturer has data to correlate the performance to the designated package.

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

Inspection 1/	MIL-STD-750		Qualification and large lot quality conformance inspection.
	Method	Conditions	
Subgroup 1			12 devices c = 0
Temperature cycling (air to air)	1051	Test condition G, 500 cycles	
Hermetic seal			
Fine leak Gross leak	1071		
Electrical measurements		See table I, group A, subgroup 2 herein	
Subgroup 2 1/			12 devices c = 0
Steady-state gate bias	1042	Test condition B; 1,000 hours	
Electrical measurements		See table I, group A, subgroup 2 herein	
Steady state reverse bias	1042	Test condition A; 1,000 hours	
Electrical measurements		See table I, group A, subgroup 2 herein	
Subgroup 3			
Not applicable			
Subgroup 4			22 devices c = 0
Thermal resistance	3161	$R_{\theta JC}$ = 0.83°C/W maximum. See 4.5.2	
Subgroup 5			15 devices c = 0
Barometric pressure test (not required for $V_{BR(DSS)} \leq$ 200V)	1001	Test condition C	
Subgroup 6			
ESD (Electrostatic Discharge Protection)	1020	As specified	3 devices c = 0

1/ A separate sample for each test may be pulled.

TABLE IV. Groups B and C delta V_{SD} measurements

Step	Inspection 1/, 2/	MIL-STD-750		Symbol	Limits		Units
		Method	Conditions		Min	Max	
1.	Thermal response	3161	See 4.5.3	ΔV_{SD}		120	mV

1/ The delta V_{SD} measurements for table VIa (JANS) of MIL-PRF-19500 are as follows:

a. Subgroup 4, see table IV herein, step 1.

2/ The delta V_{SD} measurements for table VII of MIL-PRF-19500 are as follows:

a. Subgroup 6, see table IV herein, step 1.

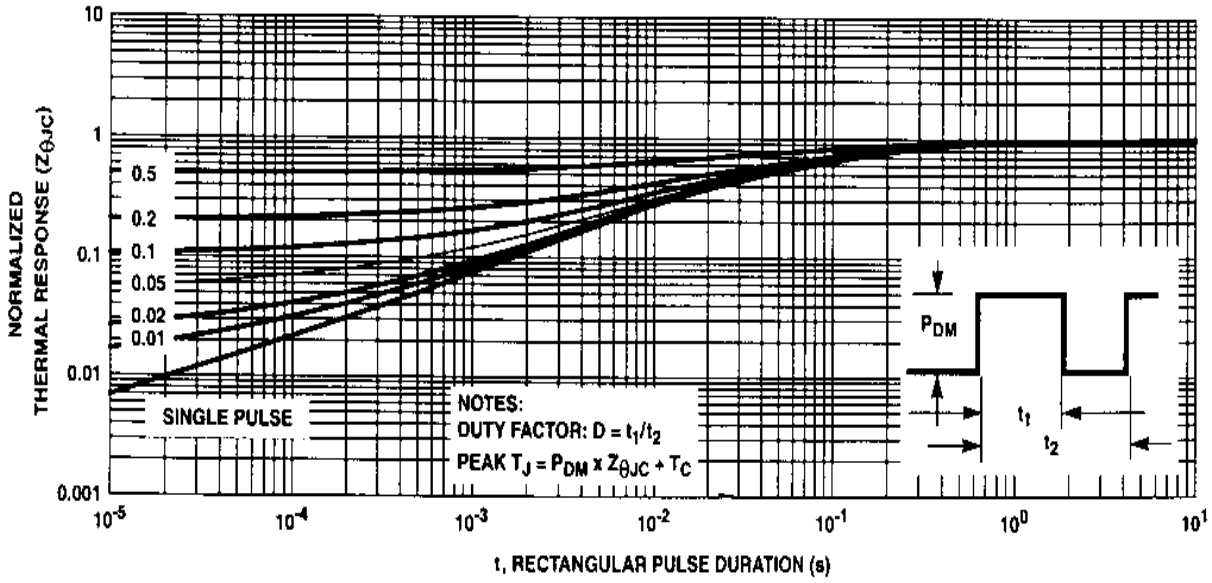


FIGURE 2. Thermal response curves

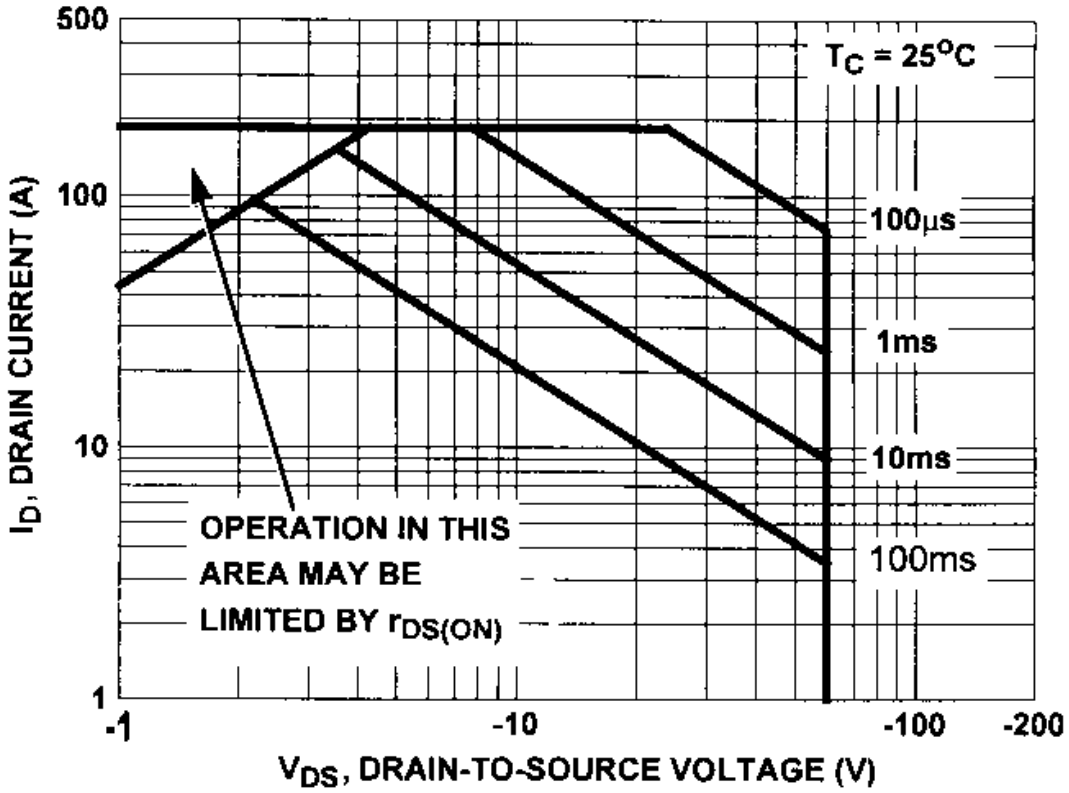


FIGURE 3. Safe operating area graph

4.5.3 Thermal Response ΔV_{SD} measurement). The delta V_{SD} measurement shall be performed in accordance with method 3161 of MIL-STD-750. The delta V_{SD} conditions (I_H and V_H) and maximum limit shall be derived by each vendor from the thermal response curves (see figure 2) and shall be specified in the certificate of conformance prior to qualification. The following parameter measurements shall apply:

a. Measuring current (I_M)..... 10 mA

b. Drain heating current (I_H)..... 4 A

c. Heating time (t_H)..... 100 ms

d. Drain-source heating voltage (V_H)..... -25 V

e. Measurement time delay (t_{MD})..... 30 - 60 µs

f. Sample window time (t_{SW})..... 10µs maximum

4.5.4 Single pulse avalanche energy (E_{AS}).

a. $I_{AS} = I_{DM}$

b. L = 0.1 mH

c. Gate to source resistor ($25\Omega \leq R_{GS} \leq 200\Omega$)

d. $E_{AS} = 1/2\ LI_{AS}^2$

e. $V_{DD} \leq -60$ V

f. Initial junction temperature = 25°C, -5°C, +10°C

4.5.5 Gate stress test.

a. $V_{GS} = -30$ V

b. t = 250 µs, minimum

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 (see 3.3.1).

c. Type designation and product assurance level.

d. 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, DSCC-VQE, Columbus, OH 43216.

6.4 Cross-reference list. The following table shows the generic P/N and its associated military P/N (without JAN and RHA prefix).

Generic P/N	Military P/N
STJ9055	2N7445T1

CONCLUDING MATERIAL

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

Preparing activity:
DLA - CC

(Project 5961-2120)

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-19500/665	**2. DOCUMENT DATE** 99/08/30

3. DOCUMENT TITLE SEMICONDUCTOR DEVICE, FIELD EFFECT RADIATION HARDENED (TOTAL DOSE CHARACTERIZATION ONLY) TRANSISTOR, P-CHANNEL SILICON TYPE 2N7445T1 JANSD, R

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 614-692-0510 DSN 850-0510 FAX 614-692-6939 EMAIL alan_barone@dscc.dla.mil
c. ADDRESS 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 Belvior, Virginia 22060-6221 Telephone (703) 767-6888 DSN 427-6888

DD FORM 1426, FEB 99 (EG) PREVIOUS EDITIONS ARE OBSOLETE WHS/DIOR, Feb 99