

The documentation and process conversion measures necessary to comply with this amendment shall be completed by 22 December 1998

INCH-POUND

MIL-PRF-19500/543E
AMENDMENT 2
22 September 1998
SUPERSEDING
AMENDMENT 1
12 October 1997

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, FIELD EFFECT TRANSISTORS, N-CHANNEL, SILICON
TYPES 2N6764, 2N6766, 2N6768, 2N6770,
JAN, JANTX, JANTXV, JANS, JANHC, AND JANKC

This amendment forms a part of MIL-PRF-19500/543E, dated 5 August 1997 and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.3, maximum ratings, first P_T column; delete "15" four places and substitute "150" four places.

PAGE 2

* 1.4, Max I_{DSS1} column, delete "mA dc" and substitute " μ A dc".

PAGE 7

* 3.3.2, first line, delete "diodes", and substitute "MOSFETS".

PAGE 8

* 4.3, delete and substitute as follows:

"4.3 Screening (JANS, JANTXV, and JANTX levels only). Screening shall be in accordance with appendix E, 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."

4.3, screen table, screen 12 for JANTX and JANTXV, following "test condition A", add "or".

PAGE 9

* 4.4.2, second line, delete "(JANTX, JANTXV, and JANS)" and substitute "(JANTX, JANTXV, and JAN)".

* 4.4.2.1, B4, conditions; delete "No forced air cooling on the device shall be permitted".

* 4.5.2.b, following 4A, add "minimum".

* 4.5.2.d, following 25 V, add "minimum".

PAGE 10

4.5.3b, following "4A", add "minimum".

4.5.3d, following "25 V", add "minimum".

* The attached insertable replacement pages listed below are replacements for stipulated pages. When the new pages have been entered in the document, insert the amendment as the cover sheet to the specification.

<u>Replacement page</u>	<u>Pages replaced</u>
3	3
4	4

AMSC/NA
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FSC 5961

MIL-PRF-19500/543E
AMENDMENT 2

PAGE 12

- Table I, subgroup 3, Gate to source voltage (threshold), method column,; delete "3404" and substitute "3403".

PAGE 13

- * Table I, subgroup 7, delete in its entirety and substitute as follows:

Subgroup 7					
Gate charge	3471	Bias condition B			nC
On-state gate charge			$Q_{g(on)}$		
2N6764				125	
2N6766				115	
2N6768				110	
2N6770				120	
Gate to source charge			Q_{gs}		nC
2N6764				22	
2N6766				22	
2N6768				18	
2N6770				19	
Gate to drain charge			Q_{gd}		nC
2N6764				65	
2N6766				60	
2N6768				65	
2N6770				70	
Reverse recovery time	3473	$di/dt = 100 \text{ A}/\mu\text{s}$, $V_{DD} \leq 30 \text{ V dc}$, $I_D = I_{D1}$	t_{rr}		ns
2N6764				500	
2N6766				950	
2N6768				1,200	
2N6770				1,600	

PAGE 15

- * Table III, step 6, conditions column; delete " $I_D = I_{D2}$ " and substitute " $I_D = I_{D1}$ ".

Table III, step 8, Inspection column; delete "4"; conditions column; delete "See 4.3.3" and substitute "See 4.5.3".

PAGE 17

- * Top of figure 4; delete "2N7364".

NOTE: The margins of this amendment are marked with asterisks to indicate where changes from the previous amendment 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 last previous amendment.

Custodians:
Army - CR
Navy - EC
Air Force - 17

Preparing activity:
DLA - CC

(Project 5961-1972)

Review activities:
NAVY - TD
Air Force - 19, 70, 80, 85, 99

MIL-PRF-19500/543E
AMENDMENT 2

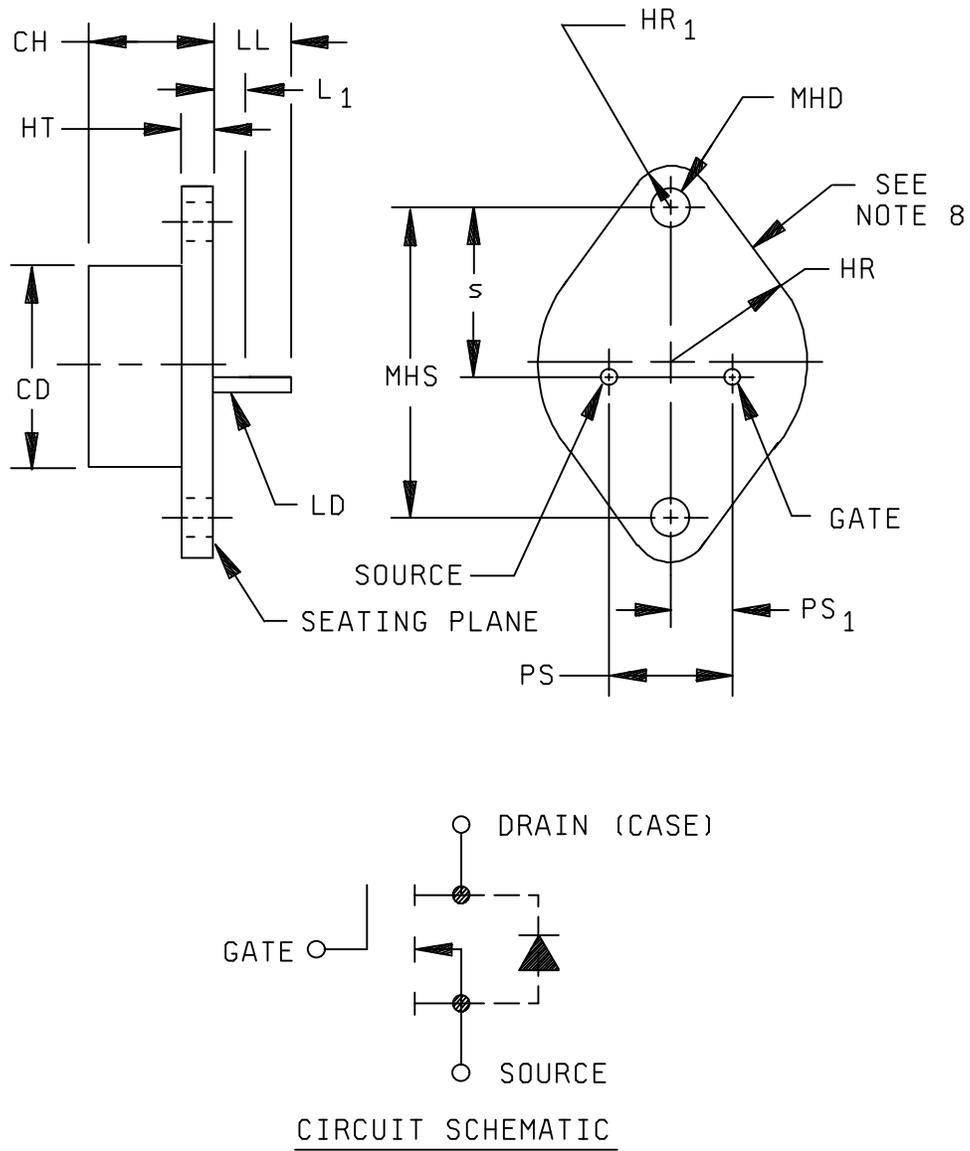


FIGURE 1. Physical dimensions of transistor type TO-204AE, 2N6764 and 2N6766; for types TO-204AA, 2N6768 and 2N6770.

Supersedes page 3 of MIL-PRF-543E
dated 5 August 1997

MIL-PRF-19500/543E
AMENDMENT 2

Ltr	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
CD		.875		22.23	
CH	.250	.360	6.35	9.15	
HR	.495	.525	12.57	13.3	
HR ₁	.131	.188	3.33	4.78	
HT	.060	.135	1.52	3.43	
LD	.057	.063	1.45	1.60	5
	.038	.043	0.97	1.10	6
LL	.312	.500	7.92	12.70	
L ₁		.050		1.27	3
MHD	.151	.161	3.84	4.09	7
MHS	1.177	1.197	29.90	30.04	
PS	.420	.440	10.67	11.18	
PS ₁	.205	.225	5.21	5.72	7
s	.655	.675	16.64	17.15	

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. These dimensions shall be measured at points .050 inch (1.27 mm) and .055 inch (1.40 mm) below the seating plane. When gauge is not used, measurement will be made at the seating plane.
4. The seating plane of the header shall be flat within .001 inch (0.03 mm) concave to .004 inch (0.10 mm) convex inside a .930 inch (23.62 mm) diameter circle on the center of the header and flat within .001 inch (0.03 mm) concave to .006 inch (0.15 mm) convex overall.
5. These dimensions pertain to the 2N6764 and 2N6766 types.
6. These dimensions pertain to the 2N6768 and 2N6770 types.
7. Mounting holes shall be deburred on the seating plane side.
8. Drain is electrically connected to the case.

FIGURE 1. Physical dimensions of transistor type TO-204AE, 2N6764, and 2N6766; for types TO-204AA, 2N6768, and 2N6770 - Continued.

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