

INCH-POUND

MIL-PRF-1/95E
14 March 2013
SUPERSEDING
MIL-PRF-1/95D
22 January 2007

PERFORMANCE SPECIFICATION SHEET

ELECTRON TUBE, RECEIVING

TYPE 5886

Inactive for new design
after 7 March 1997.

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the electron tube described
herein shall consist of this specification sheet and MIL-PRF-1.

DESCRIPTION: Pentode, subminiature, filamentary electrometer.

Outline	----	2-1 (EIA).
Base	----	Pinch press (5 leads).
Envelope	----	T2X3.
Cathode	----	Coated filament.

Base connections:

Pin No.	----	1	2	3	4	7
Element	----	a	g2	+f, 1g3	-f, 2g3	g1

ABSOLUTE RATINGS:

Parameter:	Ebb	Ef	Eb	Ec2	Ec1	Ik	R1	Alt
Unit:	V dc	μA dc	Ohms	ft				
Maximum:	---	1.5	22.5	22.5	---	300	---	10,000
Minimum:	---	1.0	---	---	---	---	---	---
Test conditions:	22.5	1.25	---	---	-3.0	---	60,000 (triode connected)	---

GENERAL:

Qualification - Not required.

This specification sheet uses accept on zero defect sampling in accordance with MIL-PRF-1, table III.

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TABLE I. Testing and inspection.

Requirement or test	MIL-STD-1311	Conditions	Symbol	Limits		Unit
				Min	Max	
<u>Conformance inspection, part 1</u>						
Total grid current	1266	(see notes 1 and 2)	Ic1	0	2.5×10^{-13}	A dc
Voltage gain	---	Esig = 0.2 V ac	Ep	0.24	---	V ac
Short and discontinuity detection	1201		---	---	---	---
Electrode current (anode)	1256		Ib	175	225	μ A dc
<u>Conformance inspection, part 2</u>						
Filament current	1301		If	8.8	11.2	mA dc
Transconductance	1306	Eb = 10.5 V dc; R1 = 0	Sm	120	240	μ hos
Amplification factor (triode)	1316	Eb = 10.5 V dc; R1 = 0	Mu	1.6	2.1	---
Direct-interelectrode capacitance	1331	No shield	Cg1-all	1.0	3.0	pF
Lead fatigue	1116		---	---	---	---
Insulation of electrodes	1211		---	---	---	---
Permanence of marking	1105		---	---	---	---

See notes at end of table.

TABLE I. Testing and inspection.

Requirement or test	MIL-STD-1311	Conditions	Symbol	Limits		Unit
				Min	Max	
<u>Conformance inspection, part 3</u>						
Life-test provisions	---	Group C; triode connected	---	---	---	---
Life-test end points (500 hours):	---	Voltage gain Total grid current	Ep Ic1	0.22 ---	--- 5x10 ⁻¹³	V ac A dc
Life-test provisions	---	Group C; triode connected (see note 3)	---	---	---	---
Life-test end point (10,000 hours)	---	Voltage gain	Ep	0.22	---	V ac

NOTES:

1. Measurement shall be made with tube in an electrostatically shielded, light-tight container. One hour pre-heating is permitted prior to testing.
2. This test to be performed at the conclusion of the holding period.

Referenced documents. In addition to MIL-PRF-1, this document references the following: MIL-STD-1311.

The margins of this specification are marked with vertical lines 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 last previous issue.

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5960-2013-001)

Review activities:

Army - AV, MI
Navy - AS, CG, MC, OS
Air Force - 19, 99

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/>.