

INCH POUND

MIL-PRF-1/338J
30 September 2009
 SUPERSEDING
 MIL-PRF-1/338H
 14 July 1998

PERFORMANCE SPECIFICATION SHEET

ELECTRON TUBE, TRANSMITTING
 TYPE 2E26

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 document and the latest issue of MIL-PRF-1

DESCRIPTION: Beam power amplifier, F1 = 125 MHz, F2 = 175 MHz.

- Outline - - - See figure 1.
- Base - - - B8-26 or B8-44.
- Cap - - - C1-1.
- Envelope - - - T9.
- Cathode - - - Coated unipotential.

Base connections:

Pin No.	1	2	3	4	5	6	7	8	Cap
Element	k, g3, int sd	h	g2	k, g3, int sd	g1	k, g3, int sd	h	base sleeve	a

ABSOLUTE-MAXIMUM RATINGS:

Parameter:	Ef	Eb	Ec1	Ec2	Ib	Ic1	Pp	Pg2	P1	Ehk	Modulation	Alt
Unit:	V	V dc	V dc	V dc	mA dc	mA dc	W	W	W	v	- - -	ft
Maximum:												
Class A audio:	6.9	300	- - -	200	- - -	- - -	10	2.5	- - -	100	- - -	10,000
Class AB2 audio:	6.9	400	- - -	200	75	- - -	10	2.5	30	100	- - -	10,000
Class C Tel:	6.9	400	-175	200	60	3.5	6.7	1.7	20	100	Anode	10,000
Class C Tlg:	6.9	500	-175	200	75	3.5	10	2.5	30	100	- - -	10,000
Minimum:	5.7	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Test conditions:	6.3	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

GENERAL:

Qualification: Not required.

MIL-PRF-1/338J

TABLE I. Testing and inspection.

Inspection	Method MIL-STD-1311	Notes	Conditions	Symbol	Limits Min	Limits Max	Unit
<u>Conformance inspection, part 1</u>							
Total grid current	1266	1	Eb = 500 V dc; Ec2 = 200 V dc; Ec1/ Ib = 20 mA dc	Ic1	0	-3.0	μA dc
Emission	1231	1	Eb = Ec1= Ec2 = 25 V dc	Is	130	---	mA dc
Electrode current (anode)	1256		Eb = 200 V dc; Ec2 = 135 V dc; Ec1 = -10 V dc	Ib	23	47	mA dc
Electrode current (screen)	1256		Eb = 200 V dc; Ec2 = 135 V dc; Ec1 = -10 V dc	Ic2	---	4	mA dc
Short and discontinuity detection	---			---	---	---	---
<u>Conformance inspection, part 2</u>							
Heater current	1301			If	740	860	mA
Heater-cathode leakage	1336			Ihk	---	50	μA dc
Power oscillation (1)	1236		Eb = 500 V dc; Ec2 = 200 V dc; Ib = 60 mA dc; Ic1 = 2 mA dc; Rg1 = 15,000 Ω; F = 15 MHz	Po	18	---	W (useful power)
Direct-interelectrode capacitance	1331	2	No shield	Cg1a Cin Cout	---	0.2 14.4 8.0	pF pF pF
Low-frequency vibration	1031		Eb = 250 V dc; Ec2 = 200 V dc; Ec1/Ib = 10 mA dc; Rp = 2,000 Ω	Ep	---	500	mV ac
Secureness of base, cap, or insert	1101	3		---	---	---	---
Base pin solder depth	1111	3		---	---	---	---
Permanence of marking	1105	3		---	---	---	---

See footnotes at end of table I.

MIL-PRF-1/338J

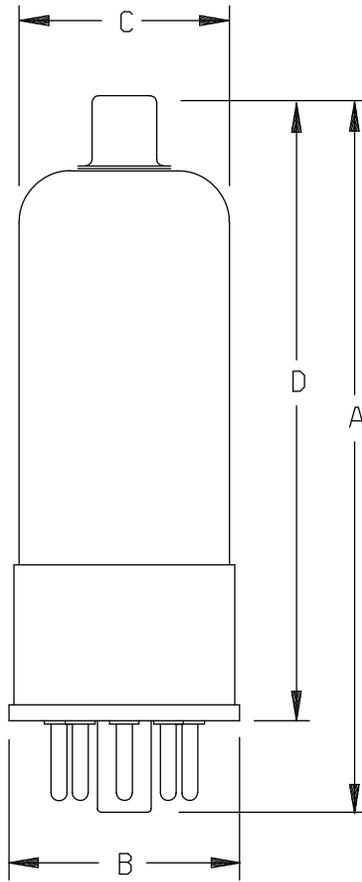
TABLE I. Testing and inspection. - Continued.

Inspection	Method MIL-STD-1311	Notes	Conditions	Symbol	Limits Min	Limits Max	Unit
<u>Conformance inspection, part 3</u>							
Life test	---		Group C; Eb = 500 V dc; Ec2 = 200 V dc; Ec1/Ib = 20 mA dc	---	---	---	---
Life-test end point (500 hours):	---						
Emission	1231		Eb = Ec1 = Ec2 = 25 V dc	Is	100	---	mA dc
Power oscillation (2)	1236	3	Eb = 400 V dc; Ec2 = variable; Ic1 = 2mA dc; Ib = 75 mA dc; F = 125 MHz; Rg1 = 25,000 Ω	Po	15	---	W (useful power)
Base material insulating quality	1216	3	Zone 5 (min)	---	---	---	---

NOTES:

1. This test shall be performed at the conclusion of the holding period.
2. The base sleeve shall be tied to the cathode for each capacitance measurement.
3. This specification sheet uses accept on zero defect sampling plan in accordance with MIL-PRF-1, table III.

MIL-PRF-1/338J



Dimensions in inches with metric equivalents (mm) in parentheses.		
Ltr	Minimum	Maximum
Conformance inspection, part 1		
A	3.344 (84.94)	3.656 (92.86)
B		1.312 (33.32)
C	1.062 (26.97)	1.188 (30.18)
D	2.781 (70.64)	3.094 (78.59)

FIGURE 1. Outline drawing of electron tube type 2E26.

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 5960-2009-032)

Review activities:

Army - AR
Navy - AS, CG, MC, OS

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 <http://assist.daps.dla.mil/>.