

INCH-POUND

MIL-PRF-1/195D
16 June 2003
SUPERSEDING
MIL-PRF-1/195C
12 June 1998

PERFORMANCE SPECIFICATION SHEET
ELECTRON TUBES, RECEIVING
TYPE OB3

The requirement for acquiring the electron tube described herein shall consist of this document and the latest issue of MIL-PRF-1.

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

DESCRIPTION: Voltage regulator
Outline 12 - 7 (EIA)
Base B6-3
Envelope ST12
Cathode Glow discharge

Base connections:

Pin No.	1	2	3	5	7	8
Element	nc	k	7 (see note 1)	a	3 (see note 1)	nc

ABSOLUTE-MAXIMUM RATINGS:

Parameter:	Ebb	Starting voltage	Operating voltage	Operating current	Alt
Unit:	V dc	V dc	V dc	mA dc	ft
Maximum:	---	---	90 (approx)	30	10,000
Minimum:	---	130	---	5	---
Test conditions:	150	---	---	(see note 2)	---

GENERAL:

Qualification - OB3 - Not required

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Table I. Testing and inspection.

Inspection	Method	Conditions	Acceptance Level (see note 6)	Symbol	Limits Min	Limits Max	Unit
<u>Conformance inspection, part 1</u>							
Ionization voltage (1)	3347	Rp/lb = 5 to 30 mA dc (see notes 3 and 4)	0.65	Ez	---	125	V dc
Voltage drop (1)	3337	Rp/lb = 5 mA dc	0.65	Etd (1)	80	---	V dc
Voltage drop (2)	3337	Rp/lb = 30 mA dc	0.65	Etd (2)	---	100	V dc
Regulation	3335	Etd (2) - Etd (1)	0.65	Reg	---	6.0	V dc
Noise and oscillation (oscillation test)	3278	Esig = 100 mV ac; RL = 500; Ebb/lb = 5 to 30 mA dc	0.65	---	---	---	---
Noise and oscillation (noise)	3278	Ebb/lb = 30 mA dc; RL = 500	0.65	Δ EB	---	15.0	mV ac
Short and discontinuity detection	1201		0.4	---	---	---	---
<u>Conformance inspection, part 2</u>							
Low-frequency vibration	1031	No voltage	6.5	---	---	---	---
Leakage current	3305	Eb = 50 V dc	6.5	Llb	---	10.0	μ A dc
Secureness of base and base insert	1101		6.5	---	---	---	---
Base pin solder depth	1111	(See note 5)	6.5	---	---	---	---
Permanence of marking	1105		---	---	---	---	---
<u>Conformance inspection, part 3</u>							
Life-test provisions	---	Group A; Rp/lb = 30 mA dc	---	---	---	---	---
Life-test end points (500 hours)	---	Ionization voltage	---	Ez	---	130	V dc
		Voltage drop (1)	---	Etd (1)	77	---	V dc
		Voltage drop (2)	---	Etd (2)	---	103	V dc
		Regulation	---	Reg	---	9.0	V dc

NOTES:

1. Pins 3 and 7 tied internally.
2. Fixed resistor may be used and Ebb varied to give desired current.
3. Test to be conducted with the tube exposed to light intensity of 5 to 50 footcandles.
4. This test to be performed at the conclusion of the holding period.
5. This test applies to flexible leads as well as for rigid leads.
6. This specification sheet uses accept on zero defect sampling plan, in accordance with MIL-PRF-1, table III.

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Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:

DLA - CC

(Project 5960-3672)

Review activities:

Navy - AS, CG, MC, OS
Air Force - 19, 99