VALVE ELECTRONIC

ADMIRALTY SURFACE WEAPONS ESTABLISHMENT

CV 3587

Specification AD/CV3587 incorporating MIL-E-1/925A Issue 1 Dated 1.11.65 To be read in conjunction with K1006	SECURITY Specification: Unclassified Valve: Unclassified

TYPE OF VALVE:	Half Wave rectifier	MARKING
CATHODE:	Directly Heated	See K1001/4
ENVELOPE:	Glass	BASE
PROTOTYPE:	705A	See drawing on page 2

RATINGS, CONNECTIONS, DIMENSIONS

As in Specification MIL-E-1/925A

TESTS

As in Specification MIL-E-1/925A with the addition under "Qualification Approval Tests" of "Ref. 3.6 - Performance" in which the following tests listed in paragraph 3.6 shall apply:-

3.3, 3.3.1, 3.4.1, 3.4.2, 3.4.3, 3.8, 4.1, 4.4, 4.5, 4.6, 4.7, 4.9.1., 4.9.2, and 4.9.5.1

The Joint Services Catalogue Number is 5960-99-000-3587

CV 3587

MIL-E-1/925A
26 December 1956
SUPERSEDING
MIL-E-1/925
5 August 1955

INDIVIDUAL MILITARY SPECIFICATION SHEET

ELECTRON TUBE, RECTIFIER, HALF-WAVE, HIGH-VACUUM

JAN-705A

This specification sheet forms a part of tne latest issue of Military Specification MIL-E-1.

Ratings	:	Ef	epx	epy	ib	Io	Pp	tk	Alt
Absolute	:	Vac	kv	kv	ma	mAdc	W	sec(min)	ft
Maximum	:	5.0±5%	30	---	400	100	60	20 (Note 1)	10,000
		5.0±5%	15	---	600	150	60	20	10,000
Surge Limiting Diode		5.5	30	10	---	---	75	20	10,000
Test Cond	:	5.0	30	---	400	---	---	20 (Note 2)	---

**Cathode: Thoriated Tungsten Filament
**Base: Per outline

**Pin No.: 1 2 3 4
Element: f fct f nc

*Height: 4-13/16 in. min; 5-1/16 in. max
*Diameter: 2-5/16 in. maximum

**Cap: Per outline
**Envelope: Per outline

The following tests shall be performed:

For miscellaneous requirements, see Paragraph 3.3, Inspection Instructions for Electron Tubes.

Ref.	Test	Conditions	AQL(%)	Insp. Level or Code	Sym.	LIMITS Min.	LAL	Bogie	UAL	Max.	ALD	Units
	Qualification Approval Tests											
3.1	Qualification Approval:	Required for JAN Marking	---	---								
---	Cathode:	Thoriated Tungsten Filament	---	---								
3.4.3	Base Connections:		---	---								
	Measurements Acceptance Tests, Part 1: Note 3											
4.5	Holding Period:	t=72 hours	0.65	II	---:	---	---	---	---	---	---	
4.10.8	Filament Current:	Note 4	.65	II	If:	4.75	---	---	---	5.25	---	A
4.10.4.1	Plate Current:	Eb=300Vdc	.65	II	Ib:	290	---	---	---	440	---	mAdc
4.10.13	†Operation:	t=60; Note 5	.65	II	Io:	100	---	---	---	---	---	mAdc
4.10.1.3	Peak Emission:	eb=1000v max	.65	II	is:	750	---	---	---	---	---	ma
4.9.1	Mechanical:											
	Measurements Acceptance Test, Part 2											
4.9.19.3	Bump:	Angle=15°	6.5	1A	---:	---	---	---	---	---	---	
4.9.19.2	High-Freq. Vibration:	No Voltages	6.5	1A	---:	---	---	---	---	---	---	
4.9.5.1	Torque:		6.5	1A	---:	---	---	---	---	---	---	
	Acceptance Life Tests											
4.11	Life Test:	Group D; Operation	---	---	t:	500	---	---	---	---	---	hours
4.11.4	Life Test End Point:	Peak Emission and Failure to rectify	---	---	is:	500	---	---	---	---	---	ma
	Packaging Information											
4.9.18.1.3	Container Drop:	(d) Package Group 1; Container Size M										

CV 3587

Note 1: Connect dummy pin to filament.

Note 2: Apply 25 kv epx, then raise epx to 30 kv.

Note 3: The AQL for the combined defectives for attributes in Measurements Acceptance Tests, Part 1, excluding Mechanical, shall be one percent. A tube having one or more defects shall be counted as one defective. MIL-STD-105, Inspection Level II, shall apply.

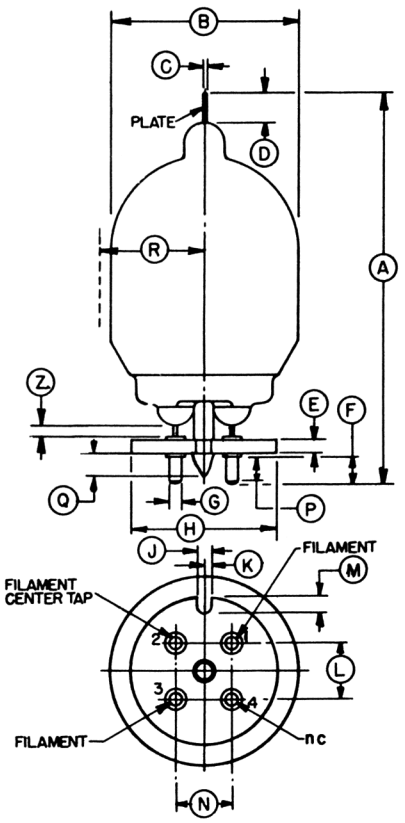
Note 4: With 2.5 Vac applied to each half of the filament, each If value shall be within the limits specified.

Note 5: No sparking or other irregular operation shall take place during the last 30 seconds of the one-minute test.

Note 6: Reference specification shall be of the issue in effect on the date of invitation for bid.

REF	DIMENSIONS	
	MIN	MAX
* A	4 13/16	5 1/16
* B		2 5/16
** C	.055	.060
* D	.305	.445
** E	3/16 NOM	
** F	1 3/32 NOM	
** G	.183	.191
* H	1.788	1.813
** J	11/64	13/64
** K	5/64	7/64
** L	11/16 NOM	
** M	11/64	13/64
** N	11/16 NOM	
** P	21/64	
** Q		1/8
* R		1.282
** Z	.015	.094
*	NOTE	

NOTE: THE BASE SHALL BE CAPABLE OF ENTERING A GAGE .250 THICK HAVING 4 HOLES WHOSE DIAMETERS ARE .214 AND WHICH ARE LOCATED ON .687 CENTERS.



BOTTOM VIEW OF BASE