ADMIRALTY SIGNAL ESTABLISHMENT

VALVE ELECTRONIC CVI253

Specification AD/CV1253/Issue 3 Dated 5.11.46. To be read in conjunction with K1001, ignoring clauses:- 5.2, 5.8.					Specn. Specn. Restricted	Valve Unclassified		
TYPE OF VALVE:- Triode - air cooled.								
CATHODE: Directly heated, thoristed tungsten.					<u>MARKING</u>			
ENVELOPE:-	LOPE:- Glass to metal; diffuser soldered to anode.					See K1001/4.		
PROTOTYPE:-	E1161.				,	* .		
RATING			,		BA	SE		
			_	Note	None			
Filament voltage mean		(V)	10.6		For connection	ns see Fig.1.		
Filament current		(A)	12.0		DIMENS	DIMENSIONS		
Max, anode dissipation		(W)	100	A	See F	ig.1.		
Max. anode peak voltage		(KA)	9.0		Gau	<u>re</u>		
Average anode peak current		(A)	15		A.S.E. Gauge No. 332, Fig.2,			
Max. operation fr	(Mc/s)	600		is used to cl dimensions of seal. The	the grid			
CAPACITANCES (IF.)						he seal without		
Cag (nom.)			7.2	-	PACKING See K1001/7.3.			
Cgf (nom.)			4.3					
	·	NOTE		<u> </u>				

NOTE

A. With forced air-cooling. During testing and operation the valve must be mounted vertically, but either the filement pins or grid thimble shall be uppermost. The air cooled surface of the ancde must be maintained below 140°C. Air, blown on to the ancde-diffuser at a rate of at least 5 cu.ft. per min. and on to the grid seal or lead at 9bout 1 cu.ft. per min. is suggested.

TESTS

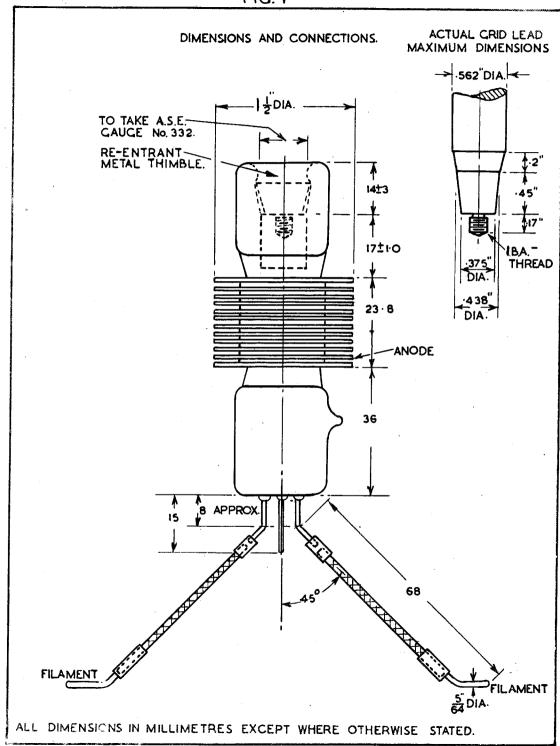
To be performed in addition to those applicable in K1001.

Test Conditions				Limi ts		No.			
	Vf	Va	∀g	Ia	Test				Note
	(V)	(KA)	(A)	(PA)		Min.	Haz.	Tested	
a	11.0	0 to 10	Ad justed	Approx.	_	1			
		slowly		1.0	Hot Flash			100%	1
	H.T. applied thus:-			1		1			
					į				
	0.25 500 ohms.		-			}			
			•						
	•								,
	for	r 3 mins.	at Va = 10	kV.		ļ ·].	
	V,	g prefera	bly auto-bis	18.					
Ь	11.0	-	•	-	If (A)	11.0	13.5	100%	
C	11.0	1.0	Adjusted	100	iIg (total) (MA)	-	80	100%	2
				iiIg (gas) (MA)	-				
đ	11.0	1.0		100	∀g (∀)	-24	-39	100%	
e	11.0	1.0	X	100	x - y (V)	14	25	1% (1)	
Ľ	11.0	0.7	y	100-	. , (17)				
Í	Ad∞	1.0	0	50	(Reduced emission)				
	just-				Vr (V)	-	4.7	100%	3
	ed				· · · · · · · · · · · · · · · · · · ·				
g	11.0	3.0	3.0				İ		
•	Peak (Peak emission to be measured		Peak emission le (A)	15	-	100%	3	
			d conditions			<u></u>			
h	Valve	cold.			CAPACITANCES (pf.)				
				,	i. Cag	5.7	8.7	Type	
								Ap-	
					ii. Cgf	3.0	5.6	proval	L

NOTES

- Each valve must be processed as shewn in test 'a'. This test need be applied once only to each valve. Each valve to be processed until internal flashing has substantially ceased.
- 2. The gas component of -Ig can be taken as the immediate decrease in -Ig when -Vg is rapidly increased to cut off Ia. The presence of unsaturated grid emission may render the performance of test 'c ii' impossible.
- 3. Test 'g' must be done if possible; if not, test 'f' must be done in its place.

 Valves failing test 'l' are satisfactory if they pass test 'g'. Peak emission to be measured under pulse conditions with a pulse length of 2 MS. and a repetition frequency of 50 p.p.s. The pulse shape is to be sinusoidal.



A.S.E.GAUGE No 332, "GO"GAUGE FOR CVI253 AND 1254. GRID SEAL.

MATERIAL - BRASS OR MILD STEEL.

