VALVE ELECTRONIC CV2666

Amoltic Amoltic

Specification MOSA./CV2666		
Issue 4 Dated 28.10.52		
To be read in conjunction	with	K.100

Specification Valve
UNCLASSIFIED UNCLASSIFIED

----> Indicates a change

TYPE OF VALVE - R.F. Double Beam CATHODE - Indirectly heated	<u>MARKING</u> See K.1001/4					
ENVELOPE - Glass, Unmetallis PROTOTYPE - 829B	BASE B7A See Drawing on Page 4					
RATINGS	Note	CONNECTIONS				
Heater Voltage (V)	6.3	A	Pin	Electrode		
Heater Current Max. Anode Voltage V Max. Grid Voltage V Max. Grid Current Max. Screen Grid Voltage V Max. Anode Dissipation W Mex. Soreen Dissipation	2.25 750 -175 7.5 225 20 6.5	B C C D	1 2 3 4 5 6 7	Heater Control Grid (b) Screen Grid Cathode, Beam Flater Heater, centre tap Control Grid (a) Heater		
Mutual Conductance (mA/V) Anode Impedance $(K\Omega)$ Imner μ $(g1 - g2)$	1.9 67 5.6	D D	T.C.1 Anode (a) T.C.2 Anode (b)			
Max. Frequency, full ratings (Mc/s.) Max. Frequency, half ratings (Mc/s.)			DIMENSIONS See Drawing on Page 4			
CAPACITANCES (pF)						
Cag Max. Cge Nom. Cae Nom. Cg2c Max.	0.12 14.5 6.95 65	000				

Amar2

NOTES

- A. Centre tapped 12.6V. heater.
- B. Forced air cooling required.
- C. Each section.
- D. Measured at Va = 300V. Vg2 = 250, Ia = 25 mA.

TESTS

CV2666

To be performed in addition to those applicable in K.1001

		,	lest Condit	done		Test		Limits		No.	Wake
L			.est contra	10118				Min.	Max.	Tested	Note
See K.1001/AIII Adaptor Type 43 Ref. 10H/13339.											
			Links to L.P.			Capacitances (pF)					
	T.C.1		6			Ca(a)gl(a)		-	0.12	T.A.	2
	6		1,3,4,5, 7.	2,8,9 T.C.1	,10, , T.C.2.	Cg1(a)e		12.8	16.2	6	
a	T.C.1	. 1,3,4,5,		2,6,8,9,10, T.C.2.		Ca(a)e		5.2	8.7	Week	
	T.C.2		2			Ca(b)g1(b)		-	0.12	T.A.	2
	2 1,3,4,5, 7. T.C.2. 1,3,4,5,			6,8,9,10, T.C.1, T.C.2. 2,6,8,9,10, T.C.1.		Cg1 (b)e	11.3	16 . 2	6 per Week		
						Ca(b)e					
	٧ħ	Va	Vg2	Vg1	Ia(mA)						
ъ	6.3	and	heater through a series		H - C Leakage (μA) Current		-	175	100%		
c	6.3	0	0	0	0	Ih	(A)	2.0	2.5	100% or S	
đ	6.3	40	0 225	-	50	Reverse 1g1	(μ A)	-	-4.0	100%	1
е	6.3	25	0 175	-11	-	1g2	(mA)	-	10.0	100% or S	1
f	6.3	25	0 175	-11	-	Ia	(mA)	38	82	100%	1
g	6.3	40	0 225	-	0,2	Vg1	(v)	-	-55	100%	
h	6.3	Anodes, grids and screen grids strapped with 25 V D.C. applied.				Emission Current	(mA)	250	-	100%	
j	To be of 20 Ia = Ig2 =	carr 0 Mc/ 250 m	ied out at s in a pus A; Ig1 = A(max.); R	h pull 10 - 15	circuit mA;	Oscillation Test Output	(w)	45	-	100%	
	a b c d e f g h	Ref Links H.I T.C.1 6 a T.C.1 T.C.2 2 T.C.2 Vh b 6.3 c 6.3 d 6.3 e 6.3 f 6.3 g 6.3 f 6.3 j 6.3 To be of 200 Ia = Ig2 = Ig2 =	See K.1001/Ref. 10E Links to H.P. T.C.1. 6 a T.C.1. T.C.2. 2 T.C.2. Vh Va b 6.3 and res c 6.3 0 d 6.3 40 e 6.3 25 f 6.3 25 g 6.3 40 h 6.3 Anogri 25 j 6.3 40 To be carr of 200 Mc/ Ia = 250 Ig2 = 35 I	See K.1001/AIII Adapt Ref. 10H/13339. Links to Links to H.P. L.P. T.C.1. 6 6 1,3,4,5, 7. T.C.2. 2 2 1,3,4,5, 7. T.C.2. 1,3,4,5, 7. T.C.2. 1,3,4,5, 7. Vh Va Vg2 b 6.3 100 Volts app and heater th resistor 100 c 6.3 0 0 d 6.3 400 225 e 6.3 250 175 f 6.3 250 175 g 6.3 400 225 h 6.3 Anodes, grids grids strappe 25 V D.C. app j 6.3 400 225 To be carried out at of 200 Me/s in a pus Ia = 250 MA; Igf =	Ref. 10H/13339. Links to Links to Link H.P. L.P. T.C.1. 6 1,2,3 8,9,1 6 1,3,4,5, 2,8,9 7. T.C.1. a T.C.1. 1,3,4,5, 2,6,8 7. T.C.2. T.C.2. 2 1,3,4 8,9,1 2 1,3,4,5, 2,6,8 7. T.C.1 T.C.2. 1,3,4,5, 2,6,8 7. T.C.1 Vh Va Vg2 Vg1 b 6.3 100 Volts applied to and heater through a resistor 100,000 oh c 6.3 0 0 0 d 6.3 400 225 - e 6.3 250 175 -11 f 6.3 250 175 -11 g 6.3 400 225 - h 6.3 Anodes, grids and so grids strapped with 25 V D.C. applied. j 6.3 400 225 To be carried out at a freq of 200 Mc/s in a push pull La = 250 MA; Ig1 = 10 - 15 Ig2 = 35 mA(max.); Rg1 = 50	See K.1001/AIII Adaptor Type 43 Ref. 10H/13339. Links to Links to Links to H.P. L.P. E. T.C.1. 6 1,2,3,4,5,7,8,9,10, T.C.2. 6 1,3,4,5, 2,8,9,10, T.C.1, T.C.2. T.C.1. 1,3,4,5, 2,6,8,9,10, T.C.2. T.C.2. 2 1,3,4,5,6,7,8,9,10, T.C.1. 2 1,3,4,5, 6,8,9,10, T.C.1. 2 1,3,4,5, 2,6,8,9,10, T.C.1. 2 1,3,4,5, 2,6,8,9,10, T.C.1. Vh Va Vg2 Vg1 Ia(mA) b 6.3 100 Volts applied to cathode and heater through a series resistor 100,000 ohms max. c 6.3 0 0 0 0 d 6.3 400 225 - 50 e 6.3 250 175 -11 - f 6.3 250 175 -11 - g 6.3 Anodes, grids and screen grids strapped with 25 V D.C. applied. j 6.3 400 225 - 0.2 To be carried out at a frequency of 200 Me/s in a push pull circuit Ia = 250 Ma; Ig1 = 10 - 15 Ma; Ig2 = 35 mA(max.); Rg1 = 5000 -	See K.1001/AIII Adaptor Type 43 Ref. 10H/13339. Links to Links to L.P. E. Capacitances (No. 1, P. 1, P. 1, P. 2, P. 1, P. 2, P. 1, P. 2, P. 3, P. 1, P. 2, P. 3, P. 1, P. 3, P. 1, P. 4, P. 1, P. 1, P. 2, P. 3, P. 1, P. 4, P. 4, P. 1, P. 2, P. 1, P. 2, P. 3, P. 1, P. 3,	See K.1001/AIII Adaptor Type 43 Ref. 10H/13359. Links to L.P. T.C.1. 6 1,2,3,4,5,7,8,9,10, T.C.2. 6 1,3,4,5, 2,8,9,10, T.C.1. T.C.2. T.C.2. 2 1,3,4,5,6,7,8,9,10, T.C.2. T.C.2. 2 1,3,4,5,6,7,8,9,10, T.C.1. 2 1,3,4,5, 6,8,9,10, T.C.1. 2 1,3,4,5, 7, 6,8,9,10, T.C.1. 2 1,3,4,5, 6,8,9,10, T.C.1. 2 1,3,4,5, 7, 1.C.1, T.C.2. T.C.2. 1,3,4,5, 2,6,8,9,10, T.C.1. Ca(b)e Vh Va Vg2 Vg1 Ia(mA) b 6.3 100 Volts applied to cathode and heater through a series resistor 100,000 ohms max. c 6.3 0 0 0 0 Ih (A) d 6.3 400 225 - 50 Reverse 1g1 (μA) c 6.3 250 175 -11 - 1g2 (mA) f 6.3 250 175 -11 - 1g2 (mA) f 6.3 Anodes, grids and screen grids strapped with 25 V D.C. applied. j 6.3 400 225 O.2 Vg1 (V) h 6.3 Anodes, grids and screen grids strapped with 25 V D.C. applied. j 6.3 400 225 O.2 O.2 Vg1 (V) To be carried out at a frequency of 200 Mc/s in a push pull circuit Ia = 250 mÅ; Ig1 = 10 - 15 mÅ; Ig2 = 35 aA(max.); Rg1 = 5000 -	Test Conditions Test Min.	Test Conditions Test Min. Max.	Test Conditions Test Min. Max. Tested

NOTES

- Test to be applied to each half of the valve, control grid of unit not under test to be connected to -100 V.
- 2. Cag to be measured with a metal shield $^{3}/_{4}$ " high and I.D. $2^{3}/_{8}$ ".

DRAWING NOTES

- The axis YY' is defined as the axis of the base pin gauge described in Note 2.
- 2. The valve base should be capable of entering to a distance of 0.375", a flat plate gauge having six holes 0.080" + 0.0005 and one hole 0.1450" + 0.0005", all arranged on a 1.000" + 0.005 circle at specified angles on the outline. Angles to be within 50" A hole 0.500" + 0.01" at the centre of the pin circle is also required. The axis YY' is defined by the

centre of this hole.

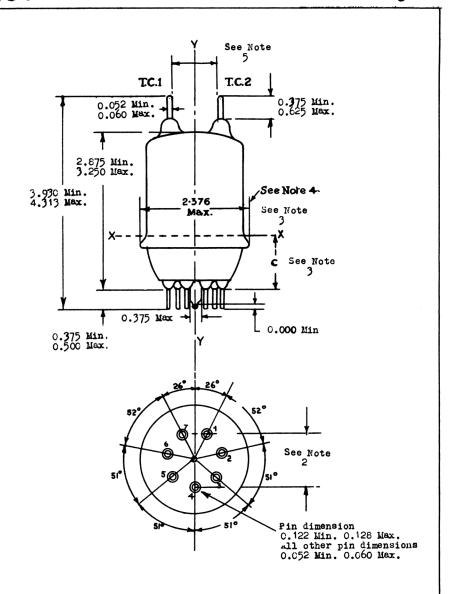
Dimension "C" is measured by inserting the tube in the base pin gauge described in Note 2, and then lowering over the valve envelope a gauge plate having a hole 2.063" - 0.000 + 0.003" in diameter until the plate rests on the seal flange at position XX'. The centre line of the hole shall be coincident with the axis YY' within 0.150. With the gauge plate parallel to the top surface of the base pin gauge, the dimension "G" is measured between the bottom surface of the gauge plate and the top surface of the base pin gauge. This

4. Minimum diameter of the valve-seal flange will be such that a ring gauge having I.D. = 2.125" + 0.003" - 0.000 and thickness of 0.125" + 0.010" will not pass the flange when tried at any angle.

distance shall be 0.844 min. and 1.219 max.

5. The ance-leads shall be capable of entering a flat gauge plate of 0.375* min. thickness having two holes 0.120 ± 0.0005* in diameter arranged 0.424 ± 0.001 from a point coincident with the axis YY. The axis of the holes shall be parallel to YY and the plane of these axis shall be 900 ± 50 from the plane through YY and Pin No. 4.

Amate



All dimensions are in inches. Drawing notes on Page 3.

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV.2666

ISSUE 4 DATED 28.10.52

AMENDMENT NO.1

Page 3 Note 2

The sentence (in the middle of this note) "Angles to be within + 5°" should be amended to read "+ 5' (minutes)".

Royal Aircraft Establishment.

December, 1958.
N.44548



ELECTRONIC VALVE SPECIFICATION SPECIFICATION MOSA/CV2666, ISSUE 4, DATED 28.10.52 AMENDMENT No. 2

1. Page 1.

- (i) Specification Authority: Delete "Ministry of Supply D.L.R.D.(A)/RAE" and substitute "Ministry of Aviation DLRD/RAE"
- (ii) Specification Title: Delete "Specification MOSA/CV2666" and substitute "Specification MOA/CV2666"
- (iii) Capacitances. Cge Nom: Delete "14.5" and substitute "13.75"

NJ.319538 /2. Page 2.

- 2. Page 2. Test Clause 'a' Capacitances
 - (i) Cg 1(a)e: In column headed "Min" delete "12.8" and substitute "11.3".
 - (ii) Cg 1(b)e: In column headed "Min" delete "12.8" and sbustitute "11.3"

T.V.C. for R.A.E. 131765