VALVE ELECTRONIC

CV499

MINISTRY OF SUPPLY (S.R.D.E.)

Specification MOS/CV499 Issue 4
Dated:- 6.6.52.
To be read in conjunction with K1001

SECURITY	
Specification	Valve
Unclassified	Unclassified

——→ indicates a change

TYPE OF VALVE:- Beam power amplifier
CATHODE:- Indirectly heated
ENVELOPE:- Glass-unmetallised
PROTOTYPE:- VX7050

MARKING
See K1001/4

PACKAGING
See K1005

RATING		Note
Heater Voltage (V)	19.0	
Heater Current (A)	0.3	
Max. Anode Voltage (V)	600	
Max. Screen Voltage (V)	300	
Max. Anode Current (mA)	120	
Max. Anode Dissipation (W)	25	
Max. Screen Dissipation (W)	4.5	
Mutual Conductance (mA/V)	6.0	A
Inner μ	9.0	A
Max. Frequency for above ratings (Mc/s)	60	

BASE
B8G

Pin	Electrode
1	Heater
2	Anode
3	Screen grid
4	Cathode & Beam plates
5	Control grid
6	Control grid
7	Cathode & Beam plates
8	Heater

DIMENSIONS
See K1001/AI/D1

CAPACITANCES (pF)	
Cag	0.13
Cge	12.0
Cae	8.5

Dimension	Min.	Max.
A mm.	-	93.0
B mm.	-	31.0
L mm.	70.0	78.0

NOTES

A. Measured at Va = 300V, Vg2 = 250V, Ia = 72 mA.

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions					Test	Limits Min.	Limits Max.	No. Tested
	See K1001/AIII					Capacitances (pF)			
	Links to H.P.		Links to L.P.		Links to E				
a	2		5,6		1,3,4,7, 8,9,10, TC1, TC2	(i) Cag	-	0.2	6
	2		1,3,4,7, 8		5,6,9,10, TC1, TC2	(ii) Cae	-	10.0	per
	5,6		1,3,4,7, 8		2,9,10, TC1, TC2	(iii) Cge	-	13.0	week
	Vh	Va	Vg2	Vg1	Ia mA				
b	19.0	-	-	-	-	Ih (A)	.27	.33	100%
c	19.0	500	300	Adjust	50	Rev. Ig1 (μA) (Note 1)	-	5.0	100%
d	19.0	500	300	-	28	Vg1 (V)	-25	-40	100%
e	19.0	500	300	-	28	Ig2 (mA)	-	2.5	100%
f	19.0	500	300	-75	-	Ia cut-off (mA)	-	1.0	100%
g	19.0	300	300	300	-	Ie (Note 2) (A)	3.5	-	100%

NOTES

1. The duration of this test shall not exceed 3 minutes. After 2 minutes the reverse current to the control grid shall not exceed the value specified and shall not be rising.

2. This test shall be carried out by the application of a 2 μsec. pulse of 300 volts peak amplitude and 50 c/s. repetition frequency between the cathode and all other electrodes strapped together.