MINISTRY OF SUPPLY - DLRD(A)/TRE

VALVE ELECTRONIC **CV2253**

Specification MOS(A)/CV2253 Issue 2 Dated 26.3.53 To be read in conjunction with K1001	SECURITY Specification: UNCLASSIFIED Valve: UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Gas-filled Tetrode

CATHODE - Indirectly-heated

ENVELOPE - Glass

PROTOTYPE - VX6109

MARKING

See K1001/4

RATING

			Note
Heater Voltage	(V)	6.3	
Heater Current	(A)	0.95	A
Max. Peak Forward Anode Voltage	(V)	600	B,C
Max. Peak Inverse Anode Voltage	(V)	1300	B,C
Max. Surge Peak Inverse Anode Voltage	(kV)	2.0	C, D
Max. Negative Screen Grid Voltage before anode conduction	(V)	100	
Max. Negative Screen Grid Voltage during anode conduction	(V)	10	
Max. Negative Control Grid Voltage before anode conduction	(V)	100	
Max. Negative Control Grid Voltage during anode conduction	(V)	10	
Max. Peak Cathode Current	(mA)	1250	
Max. Mean Cathode Current	(mA)	250	E
Max. Control Grid Series Resistance	(Megohm)	1.0	
Max. Mean Positive Control Grid Current	(mA)	5.0	E,F
Max. Peak Heater-cathode Voltage			
Heater negative	(V)	100	
Heater positive	(V)	25	
Ambient Temperature Range	(°C)	-50 to +90	

BASE

6-pin
International Octal

CONNECTIONS

Pin	Electrode
1	Heater
2	Pin omitted
3	Anode
4	Pin omitted
5	Control Grid
6	Screen Grid
7	Heater
8	Cathode

DIMENSIONS

See K1001/A1/D1

Dimension (mms)	Min.	Max.
A	-	85
B	-	35
C	-	33

MOUNTING POSITION

Any

NOTES

For Notes, see Page 2.

Z.4615.R.

NOTES

A. Minimum cathode heating-time = 15 secs.

B. Absolute maximum value.

C. These ratings apply at air pressures corresponding to an altitude of 55,000 ft, and up to a max. supply frequency of 1600 cps. Operation at supply frequencies above 1600 cps may result in the valve having a relatively short life.

D. Under transient switching conditions.

E. Maximum averaging-time = 15 secs.

F. It is not permissible to draw currents of this order during that time when the anode is more negative than -10 volts.

CV2253

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test		Limits Min.	Limits Max.	No. Tested	Note
	Vh (V)	Vht (V)	Vg2 (V)	Vg1 (V)						
a	6.3	-	-	-	Ih	(A)	0.83	1.07	100%	
b	6.3	460 AC 50 c/s RMS	0	Sufficiently negative to prevent conduction	Vg1	(V)	2.5	6.0	100%	1 & 4
c	6.3	460 AC 50 c/s RMS	0	As in Test (b)	Vg1	(V)	-	21.0	100%	2 & 4
d	6.3	DC voltage increased until valve conducts	0	0	Va	(V)	-	30.0	100%	3 & 4
e	6.3	Measure	-	-	Voltage drop across valve with Ia = 600mA	(V)	-	10.0	100%	3 & 4
f	6.3	Cathode-grid potential = -100V.			Cathode-grid (Megohm) Insulation		0.8	-	100%	
g	6.3	The valve shall be operated at PIV = 2kV, 50 cps for a period of 30 secs under conditions of normal ambient temperature and pressure.	0	0	There shall be no visible signs of sparking or flashover		-	-	100%	
h	6.3	As for Test (g) but tested at a pressure of 70 mm Hg.	0	0	There shall be no visible signs of sparking or flashover		-	-	TA or S	
j	6.3	As K1001/5.3, but Heater-cathode Voltage = -100V.			Heater-cathode Insulation	(μA)	-	125	100%	

NOTES

1. Rg1 = 0.1 Megohm; R load = 2.5K; Vg1 increased in positive direction until valve conducts.
2. Rg1 = 10 Megohms; R load = 2.5K
3. Rg1 = 0.1 Megohm; R load = 100 ohms.
4. Pins 6 and 8 strapped.