

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

Specification MOS/CV238/Issue 4 Dated:- 25.9.46 To be read in conjunction with K1001 ignoring clauses:- 5.2, 5.3 and 5.8	<u>SECURITY</u>	
	<u>Specification</u> Restricted	<u>Valve</u> Unclassified

→ indicates a change

<u>TYPE OF VALVE:-</u> Velocity modulated local oscillator		<u>MARKING</u>		
<u>CATHODE:-</u> Indirectly heated		As in K1001/4, ignoring all reference to a frame.		
<u>ENVELOPE:-</u> Copper/glass				
<u>PROTOTYPE:-</u> KR6/3				
<u>RATING</u>		Note	<u>BASE</u> IO	
Heater voltage (V)	4.0	C & F A	Pin	Electrode
Heater current (A)	1.5		1	Grid
Tuning range (Mc/s)	2930- 3130		2	Heater
Max. res. dissipation (W)	8		3	No connection
Mean res. voltage (V)	250		4	Resonator *
Refl. voltage range (V)	100- 175		5	No connection
Grid voltage (V)	0		6	No connection
Min. A.F.C. range (Mc/s)	20		7	Heater
Refl. voltage change for above frequency change (V mean)	25		8	Cathode
Max. permissible series resistance in target circuit (Ω)	25,000		A	T.C
		B	<u>TOP CAP</u> See K1001/A1/D5.2	
			<u>DIMENSIONS</u> See page 3.	

NOTES

- A. By variation of reflector voltages from $\frac{1}{2}$ power to $\frac{2}{2}$ power at any mean frequency in the range.
 - B. Superimposed on optimum setting but not necessarily disposed symmetrically about this setting.
 - C. This range applies to the 50% loaded condition. Unloaded the reflector volts are about 10 volts higher.
 - D. The valve is designed to be used with grid connected to cathode.
 - E. The tuners should not be screwed out more than 7 turns from the fully screwed in position otherwise the retaining clips may become detached and these are difficult to replace.
 - F. Reflector volts negative to cathode.
- * The resonator is not brought out to the base in early samples.

TESTS

To be performed in addition to those applicable in K1001

	Test conditions				Test	Limits		No. tested
						Min.	Max.	
a	Vf 4.0	Vg 0	Va 0	Vr 0	If (A)	1.0	1.6	100% or 5
b	4.0	0	adjusted Va is adjusted for not greater than 8W. The frequency of oscillation is varied by means of preset tuners. The valve is to be fully loaded resistively	adjusted Wa	(i) Range over which oscillations can be obtained (Mc/s) (ii) Vr over range (iii) Va over range (iv) Power output at 3130 Mc/s (mW) (v) Power output at 2930 Mc/s (mW)	3130 95 230 100 100	2930 170 270 - -	100% 100% 100% 100% 100%
c	4.0	0	As in test 'b'	Init- ially as in 'b'	(i) Total frequency change (Mc/s) (ii) Total reflector voltage change (V)	20 25	40 50	100% 100%
d	4.0	0	As in test 'b'	Init- ially as in test 'b'	(i) Total frequency change (Mc/s) (ii) Total reflector volts change (V)	20 25	40 50	5% (10) 5% (10)

NOTES

1. Va = Resonator voltage.
Vr = Reflector voltage.

