

SPECIFICATION M.O.S. CV.2466 ISSUE 1 DATED 15.6.59 To be read in conjunction with BS.448, BS.1409 and K1001	<u>SECURITY</u>	
	<u>SPECIFICATION</u> Unclassified	<u>VALVE</u> Unclassified

TYPE OF VALVE: R.F. Power Double Tetrode.				<u>MARKING</u> See K1001/4		
CATHODE: Indirectly Heated.				<u>BASE</u> BS.448/B9A		
ENVELOPE: Glass, unmetallised.						
PROTOTYPE: QQV02-6.				<u>CONNECTIONS</u>		
<u>RATINGS</u> (All limiting values are absolute)				<u>NOTES</u>		
				PIN	ELECTRODE	
Heater Voltage (series)	(V)	12.6		1	Control grid (1)	g1'
Heater Current (series)	(A)	0.3		2	Cathode + Shield	k + s
Heater Voltage (parallel)	(V)	6.3		3	Control grid (2)	g1"
Heater Current (parallel)	(A)	0.6		4	Heater	h
Max. Anode Voltage	(V)	250		5	Heater	h
Max. Screen Voltage	(V)	200		6	Anode (1)	a'
Max. Anode Dissipation	(W)	3.0	B.C	7	Screen Grid (Common)	g2
Max. Screen Dissipation	(W)	1.5-3.0	C	8	Anode (2)	a"
Max. Grid Dissipation	(W)	0.12	C	9	Heater C.T.	h(c.tap)
Max. Negative Grid Voltage	(V)	100	C	<u>DIMENSIONS</u>		
Max. Cathode Current	(mA)	50	C	BS.448/B9A/2.1 Size Ref. No.3.		
Max. Peak Cathode Current	(mA)	160	C	<u>DIMENSIONS (mm)</u>		
Max. Intermittent Peak Cathode Current with A.M.	(mA)	260	C	MIN.	MAX.	
Max. Heater Cathode Voltage	(V)	100		A Seated height	-	60.5
Max. Operating Frequency	(Mc/s)	500		B Diameter	14.0	22.2
Max. Bulb Temperature	(°C)	225		C Overall length	-	67.5
Max. Pin Seal Temperature	(°C)	120		<u>MOUNTING POSITION</u>		
<u>CAPACITANCES</u> (Note D)				Any.		
C in (nom.)	(pF)	3.8	E			
C out (nom.)	(pF)	0.95	E			
Ca'-a" (max.)	(pF)	0.2				
Cg1'-Cg1" (nom.)	(pF)	0.45				
<u>NOTES</u>						
A. The valve is internally neutralized for push-pull operation. The neutralizing is optimized for the frequency range 300 to 500 Mc/s. Should the valve be required to operate at lower frequencies it may be found necessary to apply additional external neutralizing.						
B. Cooling is by radiation and convection.						
C. Each section.						
D. Measured without external screen.						
E. Sections operated in push-pull.						

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

TEST CONDITIONS:		Unless otherwise stated.					
	Vh (V)	Va (V)	Vg2 (V)	Vg1 (V)			
	6.3	150	150	-3	Note 3		

K.1001 REF.	TEST	TEST CONDITIONS	INSP. LEVEL	AQL %	SYMBOL	LIMITS		UNITS
						MIN.	MAX.	
5.3	<u>GROUP A</u>							
	Heater Current	Note 1.	100%	-	Ih	0.54	0.66	A
	Heater-Cathode Leakage Current	Vhk = ± 100V.	100%	-	Ihk	-	4e-5 45	µA
	Reverse Grid Current	Adj. Vg1 for Ia = 25mA. Notes 2 and 3.	100%	-	-Ig1	-	1.0	µA
	Anode Current (1)	Note 4.	100%	-	Ia	6	34	mA
	Screen Current	Note 4.	100%	-	Ig2	1.4	7.6	mA
	Anode Current (2)	Vg1 = -11V. Note 4.	100%	-	Ia tail	-	150	µA
A.III	<u>GROUP B</u>							
	Capacitances	Measured on a 1 Mc/s bridge with valve mounted in a fully shielded holder. Valve unscreened. Notes 3 and 6.	IC	6.5	Ca' a" Cg1' g1" Cout Cin	- 0.3 1.5 5.0	0.05 0.6 1.9 7.8	pF pF pF pF
	Dynamic Operation at 500 Mc/s.	Vht = 180V. Vg1 = -25V each section. Ia = 55 mA. Note 5.	I	6.5	Pout Ig2 total Ig1 total	4.5 8.0 - - 4.0	- 20.0 - - -	Watts mA mA

NOTES

- Parallel heater connections.
- To be read after at least three minutes operation.
- Each section.
- Test each section separately, the other section being biased to -50 volts.
- A typical circuit diagram is shown on page 3.
- Pin connections:

TEST	HP	LP	E
Ca' a"	6	8	1, 2, 3, 4, 5, 7, 9, C.
Cg1' g"	1	3	2, 4, 5, 6, 7, 8, 9, C.
Cout	6	2, 4, 5, 7, 9, C.	8, 1, 3.
	8	2, 4, 5, 7, 9, C.	6, 1, 3.
Cin	1	2, 4, 5, 7, 9, C.	3, 6, 8.
	3	2, 4, 5, 7, 9, C.	1, 6, 8.

