

CV 309

MINISTRY OF SUPPLY (D.L.R.D. (A)/R.A.E.)

Specification MAF/CV309 Issue 3 Dated 24.4.52 To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specification</u> UNCLASSIFIED	<u>Valve</u> UNCLASSIFIED

—→ Indicates a change

<u>TYPE OF VALVE</u> - R.F. Beam Power Amplifier			<u>MARKING</u> See K1001/4.	
<u>CATHODE</u> - Indirectly Heated				
<u>ENVELOPE</u> - Glass-lower portion in metal shell.			<u>BASE</u> B9G	
<u>PROTOTYPE</u> - OV1510 with plated pins.				
<u>RATING</u>			<u>CONNECTIONS</u>	
Heater Voltage	(V)	6.3	Pin	Electrode
Heater Current	(A)	0.6		
Max. Anode Voltage	(V)	400	1	Heater
Max. Screen Voltage	(V)	250	2	Anode
Max. Anode Dissipation	(W)	7.5	3	Screen Grid
Max. Screen Dissipation	(W)	1.75	4	Screen Grid
Mutual Conductance	(mA/V)	3.0	5	Shield and Beam Plates
Max. Operating Frequency	(Mc/s)	150	6	Cathode
Efficiency as Class C Amplifier at 150 Mc/s.		45%	7	Control Grid
			8	Shield and Beam Plates
			9	Heater
<u>CAPACITANCES (pF)</u>			<u>DIMENSIONS</u>	
C _{ae}		5.4	See K1001/A1/D2, with the metal sele cut away to leave no metal within a circle radius 3.2 mm. round the anode pin.	
C _{ge}		8.2		
C _{ag}		0.07		
<u>NOTES</u>				
A:- At V _a = 250, V _{g2} = 135, V _{g1} = -10.				
I _a = 30 mA.				

To be performed in addition to those applicable in K1001.

	Test Conditions				Test	Limits		No. Tested			
						Min.	Max.				
a	Measured using Adaptor Type 39. Ref. 10A/13335. See K1001/AIII.				<u>CAPACITANCES (pF)</u>						
	Links to H.P.	Links to L.P.	Links to E.								
	2	1,3,4,5,6,8,9,10.	7,TC1,TC2.	1. C _{ae}					5.2	6.8	6 per week
	7	1,3,4,5,6,8,9,10.	2,TC1,TC2.	2. C _{ge}					7.0	9.4	
	2	7	1,3,4,5,6,8,9,10,TC1,TC2.	3. C _{ag}					-	0.09	
b	V _h	V _a	V _{g2}	V _{g1}	I _h (A)	0.54	0.66	100% or 8			
	6.3	0	0	0							
c	6.3	250	135	-10	I _a (mA)	20	40	100%			
d	6.3	250	135	-10	I _{g2} (mA)	-	5.0	100% or 8			
e	6.3	250	135	-10	g _m (mA/V)	2.25	3.75	100%			
	Peak grid swing $\pm$ 1.0V. max.										
f	6.3	250	135	-10	Reverse I _{g1} (μ A)	-	2.0	100%			
g	6.3	250	135	-50	I _a (mA)	-	1.0	100%			
h	6.3	30 AC	30 AC	30 AC	Mean I _c (mA)	45	-	100%			
	Strapped										
j	The valve shall operate satisfactorily at 150 Mc/s.							T.A.			