

Specification MAP/CV1052/Issue 8 Dated 25.1.49 To be read in conjunction with K.1001.	<u>SECURITY</u>	
	<u>Specification</u> RESTRICTED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

<u>TYPE OF VALVE</u> - Pentode <u>CATHODE:</u> - Indirectly heated <u>ENVELOPE:</u> - Glass - unmetallised <u>PROTOTYPE:</u> - BL32		<u>MARKING</u> See K.1001/4	
		<u>PACKING</u> See K.1005	
<u>RATING</u>		Note	<u>BASE</u> I.O.
Heater Voltage (V)	6.3	A A	Pin
Heater Current (A)	0.2		Electrode
Max. Anode Voltage (V)	300		1
Max. Screen Voltage (V)	250		2
Max. Anode Dissipation (W)	7.5		3
Mutual Conductance (mA/V)	2.85		4
Anode Impedance ( $\Omega$ )	70,000		5
Max. Operating Frequency (Mc/s)	20		6
			7
			8
<u>CAPACITANCES (pF)</u>			T.C.
Cae	7.6		No connection
Cge	4.4		Heater
Cag	0.5		Anode
			Screen grid
			No connection
			Pin omitted
			Heater
			Cathode and suppressor grid
			Control grid
			<u>TOP CAP</u> See K.1001/AI/D5.2.
			<u>DIMENSIONS</u> See K.1001/AI/D1
		Dimension	Min.    Max.
		A        (mm)	104    110
		B        (mm)	28     36.5
		D        (mm)	-      27
		H        (mm)	53     75

NOTES

A:  $V_a = V_{g2} = 250V$ ,  $V_{g1} = -18.5V$ ,  $I_a = 30mA$ .

TESTS

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

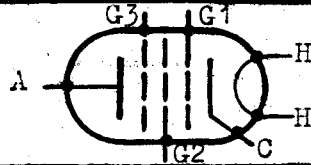
	Test Conditions					Test	Limits		No. Tested			
							Min.	Max.				
a	Measured using Adaptor type 44. Ref. 10A/13340					<u>CAPACITANCES (pF)</u>			6 per week			
	See K.1001/ATIII											
	Links to H.P.	Links to L.P.	Links to E									
	3	1,2,4, 5,7,8.	6,9,10. TC1, TC2							1. Cae	5.0 <del>6.0</del>	4.35 <del>8.35</del>
	TC1	1,2,4, 5,7,8.	3,6,9,10 TC.2							2. Cge	3.8	5.0
3	TC1	1,2,4,5,6 7,8,9,10 TC2			3. Cag	-	1.0					
b	Vh	Va	Vg2	Vg1	Ia(mA)	Ih (A)	0.18	0.22	100% or S			
	6.3	0	0	0	-							
c	6.3	250	250	-	30	Vg1 (V)	-15	-22	100%			
d	6.3	250	250	-	30	Ig2 (mA)	4.0	6.0	100% or S			
e	6.3	250	250	-	30	Reverse Ig1 (μA)	-	2.5	100%			
f	6.3	250	250	-	30	gm (mA/V)	2.3	-	100%			
	Peak grid swing ± 1.0V. max.											

# CV 1052 VT52

OUTPUT  
PENTODE

## DATA SHEET

$V_f = 6.3 \text{ V.}$   
 $I_f = 0.2 \text{ A.}$   
 See Specification for  
 ratings and connections.



### TYPICAL OPERATING CONDITIONS

<u>Single Valve</u>		<u>Two Valves in Push-pull</u>	
$V_a$	= 250 V.	$V_a$	= 200 250 V.
$V_{g2}$	= 250 V.	$V_{g2}$	= 200 250 V.
$V_{g1}$	= -18 V.	Cathode	} = 300 310 $\Omega$
$I_a$	= 32 mA.	bias R	
$I_{g2}$	= 5 mA.	for both	
$g_m$	= 2.8 mA/V.	valves	
$R_a$	= 70,000 $\Omega$	$I_a$	= 2 x 21 2 x 27.5 mA.
External } Anode R }	= 8,000 $\Omega$	$I_{g2}$	= 2 x 3.8 2 x 4.4 mA.
Output	= 3.6 W.	External } R, anode }	= 9,000 8,000 $\Omega$
G1 Input } Voltage }	= 10 V.	to anode	
		Max. output =	5.1 8.1 W.
		% total } distortion }	= 1.6 1.5 %

### AS TRIODE

	200	200	250	250
$V_a$ (V)	200	200	250	250
$V_{g1}$ (V)	19	14	27	20
$I_a$ (mA)	15	30	15	30
$g_m$ (mA/V)	2.1	3.2	1.7	2.6
$R_a$ ( $\Omega$ )	3,300	2,400	4,100	3,100
$\mu$	7	8	7	8

### RATINGS (ADDITIONAL TO THOSE IN SPECIFICATION)

Max. $V_a$ (oscillatory) (V)	= 550	Max. h/c R ( $\Omega$ )	= 5,000
Max. $V_{g2}$ " (V)	= 550	Max. autobias R	= 1.0
Max. $I_c$ (mA)	= 45	(M $\Omega$ )	
Max. $W_{g2}$ (W)	= 1.6	Max. fixed bias R	= 0.6
Max. $V_{g1}$ (for $I_{g1} = + 0.3$	= -1.3	(M $\Omega$ )	
$\mu A$ ) (V)		Max. $V_{h-c}$ (V)	= 50

SOURCE: MULLARD CATALOGUE

