

Test Specification No. D.C.D., W.T.1131. Issue No.3.	Date 14th May, 1943.	To be read in conjunction with K1001.
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→ Indicates a change.

<u>TYPE OF VALVE</u> :- H.F. Pentode.		<u>MARKING</u> VR65A 10E/149																						
<u>CATHODE</u> :- Indirectly Heated.																								
<u>ENVELOPE</u> :- Glass - Metallised.																								
<u>COMMERCIAL PROTOTYPE</u> :- SP41.																								
<u>RATING</u>		<u>DEGREE OF SECRECY OF VALVE</u> Non-Secret.																						
Heater Voltage 4.0		<table border="1"> <tr> <td colspan="2"><u>BASE</u> Mazda Octal</td> </tr> <tr> <td>Pin</td> <td>Electrode</td> </tr> <tr> <td>1</td> <td>Heater</td> </tr> <tr> <td>2</td> <td>Cathode</td> </tr> <tr> <td>3</td> <td>Anode</td> </tr> <tr> <td>4</td> <td>Screen grid</td> </tr> <tr> <td>5</td> <td>Suppressor grid</td> </tr> <tr> <td>6</td> <td>Metallising</td> </tr> <tr> <td>7</td> <td>Pin omitted</td> </tr> <tr> <td>8</td> <td>Heater</td> </tr> <tr> <td>T.C.</td> <td>Control grid</td> </tr> </table>	<u>BASE</u> Mazda Octal		Pin	Electrode	1	Heater	2	Cathode	3	Anode	4	Screen grid	5	Suppressor grid	6	Metallising	7	Pin omitted	8	Heater	T.C.	Control grid
<u>BASE</u> Mazda Octal																								
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T.C.	Control grid																							
Heater Current (A) 0.95	Note A																							
Maximum Anode Voltage 250																								
Maximum Screen Voltage 250																								
Maximum Anode Dissipation (W) 4.5																								
Maximum Screen Dissipation (W) 1.25																								
Mutual Conductance (mA/V) 8.5																								
Maximum Operating Frequency (Mc/s) 60																								
<u>CAPACITANCES (pF).</u>																								
C _{ae} 5.5	<u>TOP CAP</u> See K1001/AI/D5.1																							
C _{ge} 11.0																								
C _{ag} (max.) 0.033																								
<u>NOTES</u>		<u>DIMENSIONS</u> See K1001/AI/D1.																						
A. At V _a = V _{g2} = 200, V _{g1} = -1.85, I _a = 8 mA.		<table border="1"> <tr> <td>Dimension</td> <td>Min.</td> <td>Max.</td> </tr> <tr> <td>A (mm)</td> <td>-</td> <td>98</td> </tr> <tr> <td>B (mm)</td> <td>-</td> <td>37</td> </tr> </table>	Dimension	Min.	Max.	A (mm)	-	98	B (mm)	-	37													
Dimension	Min.	Max.																						
A (mm)	-	98																						
B (mm)	-	37																						

TESTS

To be performed in addition to those applicable in K1001.

a	Test Conditions						Test	Limits		No. Tested
	See K1001/AIII.							Min.	Max.	
a	Links to H.P.		Links to L.P.		Links to E.		Capacitances (pF)	4.7	6.9	6 per week
	3	1,2,4,5,6,8,	7,9,10,TC1,TC2.	C _{ae}						
	TC1	1,2,4,5,6,8.	3,7,9,10,TC2.	C _{ge}	10.0	14.0				
b	3		TC1		1,2,4,5,6,7,8, 9,10,TC2.		C _{ag}	-	0.033	Type Approval
	V _h	V _a	V _{g2}	V _{g3}	V _{g1}	I _a (mA)	I _h (A)	0.90	1.0	100% or S
	4.0	0	0	0	0	-				
c	4.0	200	200	0	-	8.0				
d	4.0	200	200	0	-	8.0	I _{g2} (mA)	1.5	2.5	100% or S
e	4.0	200	200	0	-	8.0	Reverse I _g (mA)	-	0.5	100%
f	4.0	200	200	0	1 V. positive to value in test 'c'	-	I _a (mA)	14.6	-	100%

TYPICAL OPERATING CONDITIONS

ANODE VOLTAGE	—	200	200	250
SCREEN VOLTAGE	250†	200	200	250
GRID VOLTAGE	—	1.0	1.8	1.5
ANODE CURRENT (mA)	—	22†	8.5	10.9
SCREEN CURRENT (mA)	—	5.5†	2.1	2.7
MUTUAL CONDUCTANCE (mA/V)	—	—	7.6	8.5
INPUT CAPACITY WORKING (pF)	—	—	15	15.25
CHANGE IN INPUT CAPACITY PRODUCED BY BIASING VALVE TO CUT OFF (pF)	—	—	4.0	4.25
SELF BIAS RESISTANCE (Ω)	—	37	170	110
INPUT LOSS AT 45Mc (Ω)	—	—	2500	2200
				2300

† MAXIMUM PERMISSIBLE RATING AS VIDEO OUTPUT VALVE, ANODE VOLTS MUST NOT EXCEED 200 VOLTS. GRID CATHODE CIRCUIT RESISTANCE SHOULD NOT APPRECIABLY EXCEED 5000 Ω.

