MAZDA

30C3

CATHODE RAY TUBE—ALL ELECTROSTATIC 5½" Dia.

Indirectly heated high grade precision measurement cathode ray tube with a polished flat face.

RATING

Heater Voltage (Volts)	V_h	4.0
Heater Current (amps)	I_h	0.72
Maximum 1st Anode Voltage (volts)	$V_{a1(max)}$	2,500
Maximum 2nd Anode Voltage (volts)	$V_{a2(max)}$	1,000
Maximum 3rd Anode Voltage (volts)	$V_{a3(max)}$	6,000
Average Sensitivity of "X" Plates(mm/V)	+	600/V
Average Sensitivity of "Y" Plates (mm/V)	+	1,100/V

+ Where "V" denotes the voltage on the 3rd Anode and Bulb Boating

INTER-ELECTRODE CAPACITANCES

X1 Deflecting Plate/all other electrodes (μμF)	$C_{x1,all}$	6.0
X2 Deflecting Plate/all other electrodes (μμF)	$C_{x2,all}$	6.0
Y1 Deflecting Plate/all other electrodes (μμF)	$C_{y1,all}$	8.6
Y2 Deflecting Plate/all other electrodes (μμF)	$C_{y2,all}$	8.6
X1 Deflecting Plate/Y1 Deflecting Plate (μμF)	$C_{x1,y1}$	0.25
X1 Deflecting Plate/Y2 Deflecting Plate (μμF)	$C_{x1,y2}$	0.25
X2 Deflecting Plate/Y1 Deflecting Plate (μμF)	$C_{x2,y1}$	0.25
X2 Deflecting Plate/Y2 Deflecting Plate (μμF)	$C_{x2,y2}$	0.25
Control Grid (Wehnelt)/all other electrodes (μμF)	$C_{g,all}$	8.2
X1 Deflecting Plate/X2 Deflecting Plate (μμF)	$C_{x1,x2}$	2.5
Y1 Deflecting Plate/Y2 Deflecting Plate (μμF)	$C_{y1,y2}$	3.2

DIMENSIONS

Maximum Overall Length (mm)	430
Maximum Diamater (mm)	142 ←
Nominal Screen Diameter (inches)	5¼
Approximate Nett Weight (ozs)	30
Approximate Packed Weight (lbs)	11½

NOTES

The connections to the deflector plates are brought out to side contacts on the neck of the tube in order to reduce the inductance and capacitance of the leads, and the coupling between the X and Y plates. It is intended, particularly, for H.F. and pulse measurements.

For general measurement work the 30.C.3/P1 is recommended. This has a screen with a medium persistence green phosphor. For special applications, however, the tube may be supplied with any of the standard phosphors described on the Introductory Page to this section.

Final Anode and Bulb coating are brought out separately in order to enable a finer spot or a higher writing speed to be obtained by increasing the Final Anode voltage above the limit set for the 1st Anode Voltage.

In use the 3rd Anode and Bulb coating are normally joined.

All maximum ratings are absolute values not design centres.

← *Indicates a change*

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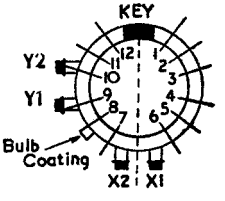
TYPICAL OPERATION

3rd Anode Voltage (volts)	V_{a3}	2,000	6,000
2nd Anode Voltage - approximate for focus (volts)	V_{a2}	440	960
1st Anode Voltage (volts)	V_{a1}	2,000	2,000
Average Bias on Control Grid for Cut-off of Beam Current (volts)	V_g	-60	-60
Average Working Bias for 20μA Beam (volts)		-33	-33
Approximate Sensitivity of "X" Plates (mm/V)		0.30	0.1
Approximate Sensitivity of "Y" Plates (mm/V)		0.57	0.19

BASE 12 Contact Key Base BS.448.

Permissible angular variation of mounts ±10°



CONNECTIONS

Pin 1	Control Grid	g
Pin 2	Cathode	k
Pin 3	Heater	h
Pin 4	Heater	h
Pin 5	Anode 1	a1
Pin 6	Anode 2	a2
Pin 7	-	-
Pin 8	-	-
Pin 9	-	-
Pin 10	Anode 3	a3
Pin 11	-	-
Pin 12	-	-

← Indicates a change

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