

4 VALVE DATA PREFERRED TYPES

J OSCILLOSCOPE AND PICTURE TUBES

ECR 35 DEFLECTION

ECR 35P
(contd.)

Electrostatic. The tube is suitable for either symmetrical or asymmetrical deflection.

With asymmetrical deflection the trapezoidal distortion is such that the angle between adjacent sides of a 45 mm x 70 mm raster is between 85° and 95°.

OPERATING CONDITIONS

$V_{a1}=V_{a3}$	1,200	V
V_{a2}	150-250	V
V_g	-1.0 to -50	V

LIMITING VALUES

$V_{a1}=V_{a3}$ max.	2,500	V
V_{h-k} max.	50	V

DEFLECTION SENSITIVITY

X plates	$\frac{360}{V_{a3}}$ mm/V
Y plates	$\frac{780}{V_{a3}}$ mm/V

Viewed from the screen end and with the tube positioned so that the spigot key of the base is uppermost, a positive voltage on X' will deflect the spot to the left and a positive voltage on Y' will deflect the spot upwards.



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BASE :
B12D

DIMENSIONS :
L=341 mm
D=90 mm

ECR 60 High-sensitivity oscilloscope tube with 6 in. diameter screen

HEATER

V_h 4.0 V I_h 1.0 A

CAPACITANCES

Grid to all other electrodes	<25	$\mu\mu\text{F}$
Each X plate or each Y plate to all other electrodes	<25	$\mu\mu\text{F}$
One X plate to one Y plate	<5	$\mu\mu\text{F}$

LUMINESCENT COLOUR

Green—medium persistence

DEFLECTION

Electrostatic. The tube is suitable for either symmetrical or asymmetrical deflection.

With asymmetrical deflection the trapezoidal distortion is such that the angle between adjacent sides of an 80 mm x 80 mm raster is between 85° and 95°.



VALVE DATA PREFERRED TYPES **4**

OSCILLOSCOPE AND PICTURE TUBES **J**

OPERATING CONDITIONS

$V_{a1}=V_{a3}$	2,000	V
V_{a2}	250 to 450	V
V_g	-1.0 to -100	V

ECR 60

(contd.)

LIMITING VALUES

$V_{a1}=V_{a3}$ max.	2,500	V
V_{h-k}	50	V

DEFLECTION SENSITIVITY

X plates	$\frac{600}{V_{a3}}$ mm/V
Y plates	$\frac{1,150}{V_{a3}}$ mm/V

Viewed from the screen end and with the tube positioned so that the spigot key of the base is uppermost, a positive voltage on X' will deflect the spot to the left and a positive voltage on Y' will deflect the spot upwards.



BASE :
B12D

DIMENSIONS :
L=432 mm
D=160 mm

Picture Tube with 2½ in. diameter metal-backed screen, for use in Projection Television

MW6-2

HEATER

V_h 6.3 V I_h 0.3 A Suitable for series or parallel operation

Important Note.—When used in a series heater chain the surge heater voltage must not exceed 8.5 V (r.m.s.) when the supply is switched on. A current limiting device should therefore be included in the circuit to ensure that this voltage is not exceeded.

MOUNTING POSITION

The tube may be mounted in any position except screen downward with the axis at an angle of less than 50° to the vertical.

EXTERNAL CONDUCTIVE COATING

This tube has an external conductive coating designated M, which must be connected to chassis. The capacitance of this coating to the anode may be used to provide smoothing for the E.H.T. supply.

SPARK TRAP

An internal spark trap, which must be connected to chassis, prevents flash-over between anode and grid within the tube.

CAPACITANCES

C_{g-all}	6.3	$\mu\mu F$
C_{k-all}	6.3	$\mu\mu F$
C_{a-M}	450	$\mu\mu F$

