PHILIPS ELECTRON DEVICES LTD

3ALP1
3ALP7
3ALP11

DESCRIPTION

Cathode ray tube for oscilloscopes

ELECTRICAL DATA

Heating

Heater voltage	6.3 V
Heater current	0.31 A
Focusing method	electrostatic
Deflection method	double electrostatic $D_1 D_2$ symmetrical $D_3 D_4$ symmetrical

Direct interelectrode capacitances

D_1 to all other electrodes except D_2	2.8 $\mu\mu$F
D_2 to all other electrodes except D_1	2.8 $\mu\mu$F
D_3 to all other electrodes except D_4	3.0 $\mu\mu$F
D_4 to all other electrodes except D_3	3.3 $\mu\mu$F
D_1 to D_2	0.8 $\mu\mu$F
D_3 to D_4	0.6 $\mu\mu$F
Grid No.1 to all other electrodes	7.0 $\mu\mu$F

OPTICAL DATA

Phosphor number	P_1	P_7	P_{11}
Fluorescent color	yellowish green	purplish blue	blue
Persistence	medium	long	medium short

MECHANICAL DATA

Cathode	coated unipotential
Outline	see drawing
Base	loctal 9 p
Mounting position	any

LINE WIDTH

Measured on a circle of 2" diameter at
Grid No.3 voltage = 800 V
Beam current = 0.5 μA: 0.028"

MAXIMUM RATINGS (Design Center Values)

Grid No. 3 voltage	max.	1000 V
	min.	800 V
Grid No. 2 voltage	max.	400 V
Grid No. 1 voltage, negative	max.	100 V
Grid No. 1 voltage, positive	max.	0 V
Peak voltage between deflection plates D_1 and D_2	max.	750 V
Peak voltage between deflection plates D_3 and D_4	max.	450 V
Screen dissipation	max.	19.4 mW/sq. inch

MAXIMUM CIRCUIT VALUES

Grid No. 1 circuit resistance	max.	0.5 MΩ
Deflection plate circuit resistance	max.	5 MΩ

from JEDEC release #4044, Dec. 24, 1962

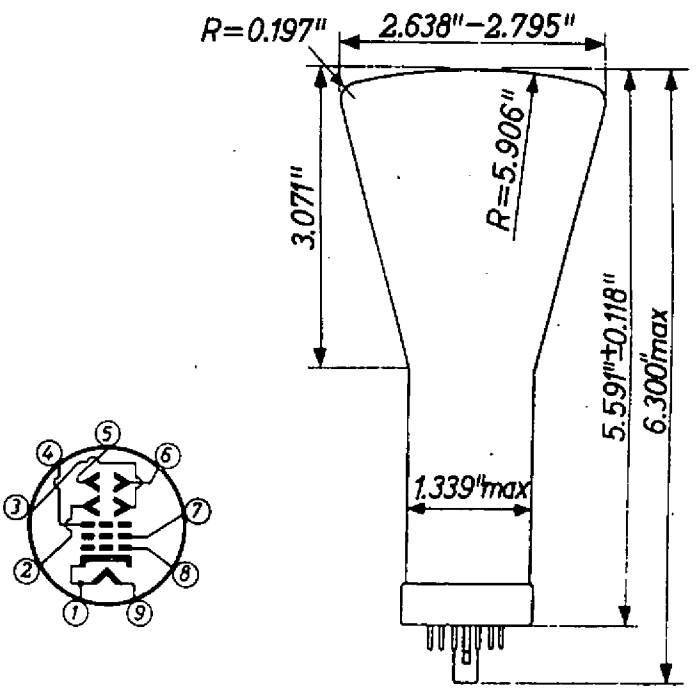
TYPICAL CHARACTERISTICS

Grid No. 3 voltage	800 V
Grid No. 2 voltage	200 to 300 V
Negative grid No. 1 bias	0 to 50 V
Deflection factor $\begin{cases} D_1\,D_2 \\ D_3\,D_4 \end{cases}$	160 V/inch 100 V/inch

LOCATION OF THE DEFLECTION PLATES

WITH RESPECT TO THE BASE

The angle between a plane through the tube axis and perpendicular to the D_1–D_2 deflection plates and a plane through the tube axis and base-pin No. 5 is 90 ±10°.



BASE CONNECTIONS

Pin No.	*Element*
1	Heater and cathode
2	Deflection plate No. 3
3	Deflection plate No. 4
4	Grid No. 3 anode
5	Deflection plate No. 1
6	Deflection plate No. 2
7	Grid No. 2
8	Grid No. 1
9	Heater