



LINE OUTPUT PENTODE

An indirectly heated output pentode. It is designed for use as a Line Time Base Output Valve in Television Receivers employing television tubes with 90° scanning angle and is intended for use in series heater chains.

PHYSICAL DETAILS.

Base	...	...	...	Octal.
Top Cap	...	...	...	CTI.
Max. Overall Length	...	...	...	110 mm. (4 $\frac{3}{8}$ ")
Max. Seated Height	...	...	...	95 mm. (3 $\frac{3}{8}$ ")
Max. Diameter	...	...	...	33 mm. (1 $\frac{5}{16}$ ")
Mounting Position	...	...	...	Any.

BASE CONNECTIONS.

Pin 1—Internal Connection.	Pin 5—Control Grid.
Pin 2—Heater.	Pin 6—No Pin.
Pin 3—Internal Connection.	Pin 7—Heater.
Pin 4—Screen Grid.	Pin 8—Cathode and Suppressor Grid.

HEATER.

Top Cap—Anode.	
Heater Current	... 0.3 amp.
Heater Voltage	... 25 volts.

RATINGS.

Max. D.C. Supply Voltage	... 550 volts.
Max. Anode Voltage	... 250 volts.
*Max. Peak Anode Voltage (Positive)	... 7 kV.
*Max. Peak Anode Voltage (Negative)	... 1.5 kV.
Max. Anode Dissipation (p_a)	... 12 watts.
Max. Screen Voltage	... 250 volts.
†Max. Screen Dissipation (p_{g2})	... 5 watts.
Max. $p_a + p_{g2}$	... 13 watts.
Max. Cathode Current	... 200 mA.
*Max. Peak Neg. Grid Voltage	... -1.0 kV.
Max. V_{h-k} (Cathode Negative)	... 200 volts.
Max. V_{h-k} (Cathode Positive)	... 250 volts.
Max. R_{g1-k} (Fixed Bias)	... 500 kΩ
Max. R_{g1-k} (Line Timebase)	... 3.3 MΩ

CHARACTERISTICS.

Anode Voltage	... 100 volts.
Screen Voltage	... 100 volts.
Control Grid Voltage	... -8.2 volts.
Anode Current	... 100 mA.
Screen Current	... 7 mA.
Mutual Conductance	... 14 mA/V.
Anode Impedance	... 5.0 kΩ
Inner μ (μ_{g1-g2})	... 5.6

TYPICAL OPERATION.

As Line Timebase Output Valve.

Curves of anode current against anode voltage for a range of control grid voltages and screen grid resistors are shown on page 4 of the data.

These curves are of average values for a new valve. To allow for valve tolerances and deterioration during life the line output circuit should be designed to accommodate a change to values 25% lower than the values indicated on the curves.

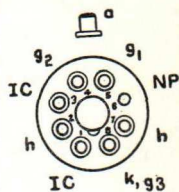
For operation below the "knee" of the anode current/anode voltage characteristics, R_{g2} should not be less than 2.2 kohms.

For operation above the "knee" it is recommended that an effective feedback stabilising circuit should be incorporated.

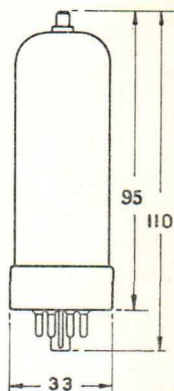
*Max. pulse duration of 22% of one cycle, with a maximum of 18 μ secs.

†Max. average p_{g2} is 7 watts for the period between the start of screen current and the instant when the anode current attains one half of its normal operating value.

PL36



Base
Connections
Underside View
of Base

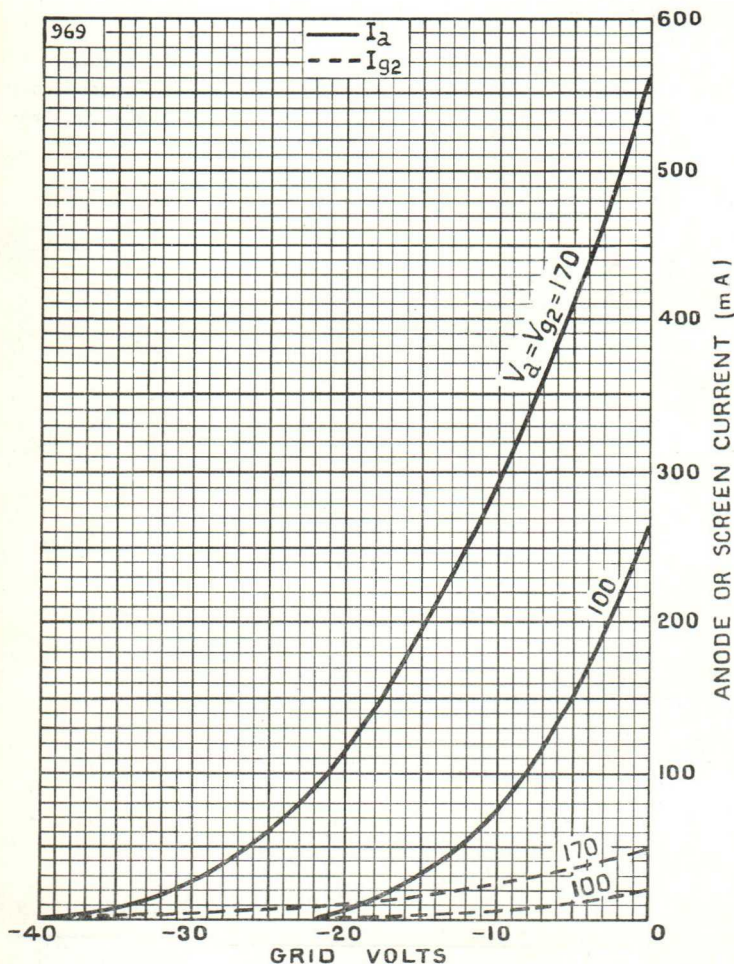


All dimensions
shown are in
millimetres
(max.)

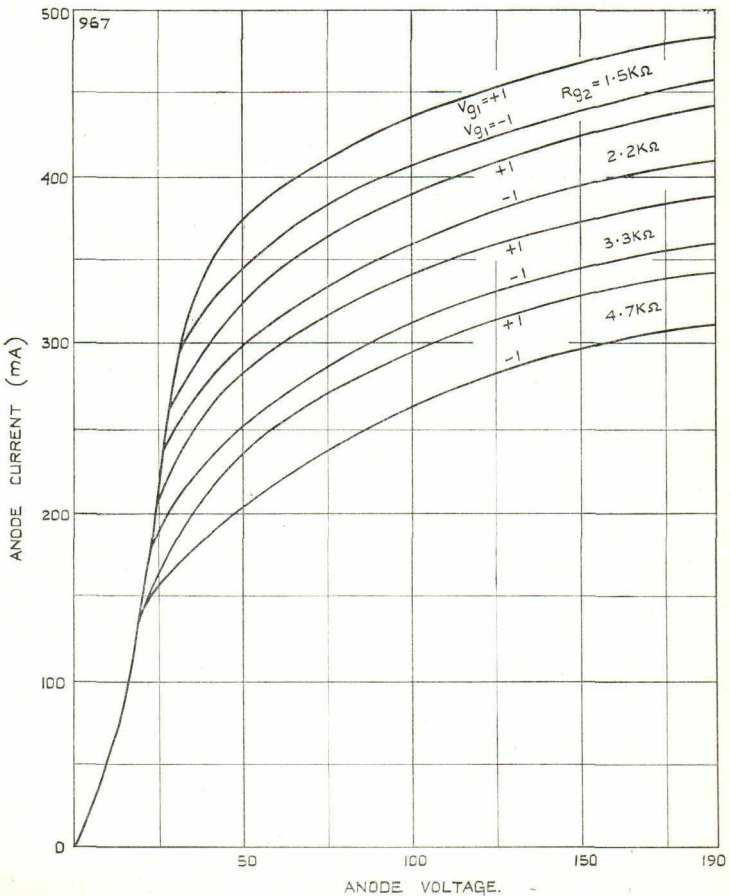


CAPACITANCES.

C_{in}	...	...	...	...	18 pF.
C_{out}	...	...	...	...	9 pF.
C_{a-g1}	...	...	...	...	< 1.1 pF.

TYPICAL ANODE CURRENT / GRID VOLTAGE CHARACTERISTIC


TYPICAL ANODE CURRENT / ANODE VOLTAGE WITH SCREEN GRID FEED
RESISTOR AS PARAMETER. (Supply Voltage 190 Volts)



TYPICAL ANODE CURRENT / ANODE VOLTAGE CHARACTERISTICS

