

PX25



PX25 POWER TRIODE

DESCRIPTION

Type PX25 is a directly heated power triode suitable for use in audio power amplifiers either singly or in push-pull.

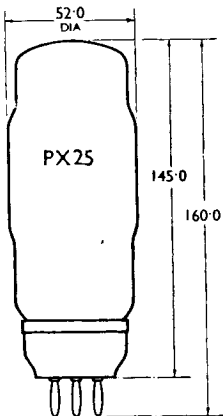
RATINGS

Filament Voltage ...	...	...	...	...	...	...	...	4.0	volts
Filament Current ...	...	...	...	...	...	...	...	2.0	approx. amps
Anode Voltage ...	...	...	...	...	...	...	...	500	max. volts
Anode Current ...	...	...	...	...	...	...	...	62.5	max. mA
Anode Dissipation ...	...	...	...	...	...	...	...	30	max. watts
Amplification Factor	}	measured at $V_a = 100$; $V_g = 0$	}	9.5	}	1,265	}	7.5	ohms	
Impedance				7.5						mA/V
Mutual Conductance										

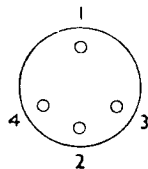
Capacitances :

Control Grid to Filament ...	...	...	...	...	...	11.4	approx. pF
Anode to Filament ...	...	...	...	...	...	8.3	" "
Control Grid to Anode ...	...	...	...	...	...	14.8	" "

DIMENSIONS



BASE



4-PIN

- 1 : Anode
- 2 : Control Grid
- 3 : Filament
- 4 : Filament

View looking on underside of base.

All dimensions are in mm. and are the maximum except where otherwise stated.

TYPE PX25

OPERATING CONDITIONS

Single Valve, Class A.

Anode Voltage	...	...	...	...	...	400	500	volts
Anode Current	...	...	...	...	...	62.5	50	mA
Bias Resistor	...	...	...	...	...	550	1,000	ohms
Load Resistance	...	...	...	...	...	3,200	5,500	ohms
Power Output	...	...	...	...	...	6	8.5	watts
Distortion	...	...	...	...	...	6	7	%
Signal Input	...	...	...	...	...	33	50	peak volts

Two Valves, Class A push-pull.

Two PX25 valves may be used in push-pull when a greater output is required, up to 20 watts with low distortion being given.

The operating conditions are as follows, values are for two valves unless otherwise stated :

Anode Voltage	...	...	...	...	...	400	500	volts
Anode Current	...	...	...	...	...	125	100	mA
Bias Resistor (per valve)	...	...	...	...	...	600	1,000	ohms
Anode Dissipation (per valve)	...	...	...	...	...	25	25	watts
Load Resistance	...	...	...	...	...	5,000	10,000	ohms
Power Output	...	...	...	...	...	15.5	20	watts
Distortion	...	...	...	...	...	2.5	2	%
Signal Input	...	...	...	...	...	76	102	peak volts

The control grid circuit should be isolated from the components in the anode circuit and the use of grid stopper resistors will prevent any tendency to oscillation if the connecting leads are kept short.

Independent automatic bias should be used whenever possible.

Fixed Bias Operation—Class AB1 push-pull.

The PX25 may be operated in push-pull Class AB1 with fixed bias: this permits the use of a low anode to anode load and considerably more output is obtainable at the expense of the separate bias supply unit. However, since no grid current is drawn this bias unit need not be of low impedance and hence it will consume only a small amount of power.

						<i>No signal.</i>	<i>Max. output.</i>	
Anode Voltage	...	...	...	...	...	525	500	volts
Anode Current (per pair)	...	...	...	...	...	50	165	mA
Anode Dissipation (per valve)	...	...	...	...	...	13	28	approx. watts
Bias Voltage	...	...	...	...	...	-54	-54	approx. volts
Load Resistance (anode to anode)	...	...	...	...	...	—	3,400	ohms
Power Output	...	...	...	...	...	—	26	watts
Distortion	...	...	...	...	...	—	4	%

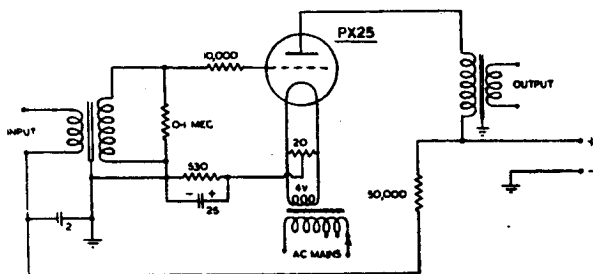
Maximum permissible resistance in grid to filament circuit:

With Automatic Bias	...	...	...	...	...	250,000 ohms
With Fixed Bias	...	...	...	...	...	100,000 ohms

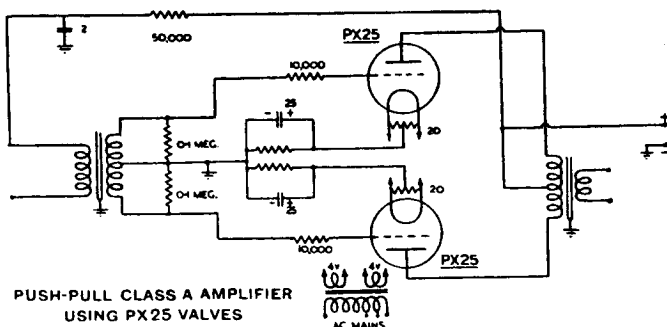
To prevent the "trigger" effect caused by an excessive positive voltage being applied to the PX25 grids, a diode, D41, is shunted across the intervalve transformer and bias unit, providing a low impedance to earth for positive voltages. It is essential not to omit this valve.

A selection of typical circuits is shown overleaf.

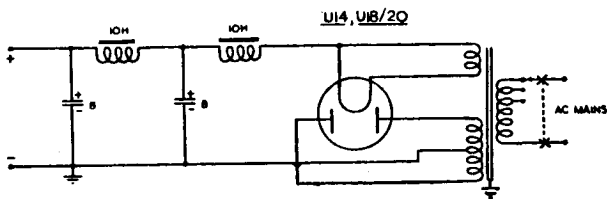
TYPE PX25



SINGLE VALVE CLASS A AMPLIFIER

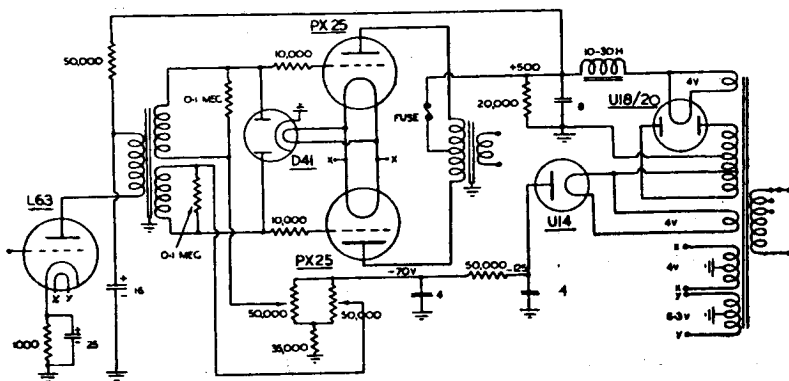


PUSH-PULL CLASS A AMPLIFIER
USING PX25 VALVES



SUITABLE ANODE SUPPLY FOR PX25 AMPLIFIER

The choice of rectifier will depend on the number of valves used and on the anode voltage: a U14 will supply one PX25 together with the earlier valves in the amplifier but for two PX25 valves, a U18/20 should be used.



PUSH-PULL CLASS AB₁ AMPLIFIER WITH SEPARATE FIXED GRID BIAS

The circuit information given does not imply any licence under any patents which may be involved.

TYPE PX25

