

SHUNT STABILIZER TRIODE

Shunt stabilizer triode intended for use as in colour TV receivers.

QUICK REFERENCE DATA

Anode voltage	V_a	25 kV
Anode current	I_a	max. 1.6 mA

HEATING: Indirect by A.C. or D.C.; series supply

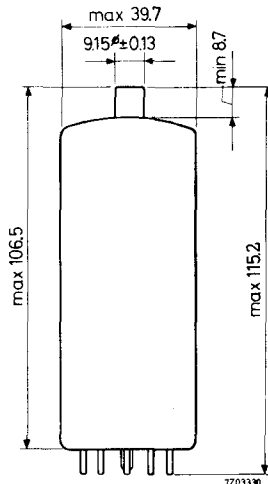
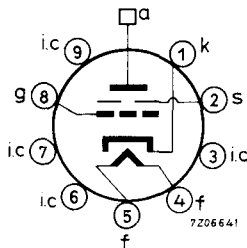
Heater current	I_f	300 mA
Heater voltage	V_f	7.3 V

DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Magnoval

Top cap: Type 2



Mounting: Additional supporting of the tube at the top is required.

To prevent corona-effects any metal screening applied around the tube should be at least 5 cm from the nearest point of the bulb.

Adequate ventilation should be provided for.

TYPICAL CHARACTERISTICS

Anode voltage	V_a	25 kV
Screen voltage	V_s	0 V
Grid voltage change for an anode current change from 0.1 to 1.5 mA	ΔV_g	max. 10 V
Grid voltage at $I_a = 1.5$ mA	V_g	-7 to -30 V
at $I_a = 0.1$ mA	V_g	max. -40 V

LIMITING VALUES (Design centre rating system unless otherwise specified)

Anode voltage	V_a	max.	25 kV
Anode voltage (absolute max.)	V_a	max.	27.5 kV ¹⁾
Anode current	I_a	max.	1.6 mA
Anode dissipation	W_a	max.	30 W
Anode dissipation (absolute max.)	W_a	max.	40 W ²⁾
Negative grid voltage	$-V_g$	max.	150 V ³⁾
Grid resistor	R_g	max.	5 M Ω
Cathode to heater voltage			
cathode positive	V_{kf}	max.	400 V _{DC} +250 V _{AC}
cathode negative	$-V_{kf}$	max.	250 V
Screen voltage	V_s	max.	0 V
	$-V_s$	max.	400 V ⁴⁾
Anode seal temperature (absolute max.)	t_s	max.	200 °C

Precaution: x-ray shielding may be required to give protection against excessive radiation.

1) If due to a circuit failure the anode current becomes 0 mA the anode voltage should never exceed 45 kV (abs. max.)

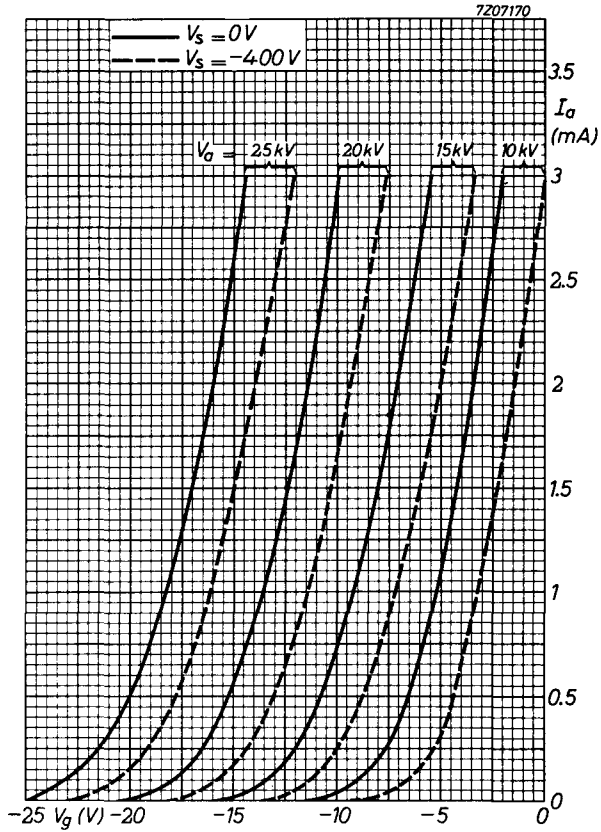
2) Permissible only during short periods; in total up to a maximum of 10% of the operation time of the tube.

3) During equipment warm-up and for brief interval during receiver adjustment this voltage may rise to 440 V max.

4) The screen connected to pin 2 is provided to shield grid and cathode from the high anode voltage.

It is recommended to connect the screen directly to earth, with a minimum lead inductance.

The modulating influence of possible hum ripple of the screen to cathode voltage should be taken into account; the sensitivity for these variations in V_s/k is 2.5 $\mu A/V$ max.



PHILIPS

Data handbook



**Electronic
components
and materials**

PD500

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