

SHUNT STABILIZER TRIODE

Shunt stabilizer triode intended for use in colour TV receivers.

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

Heater current
Heater voltage

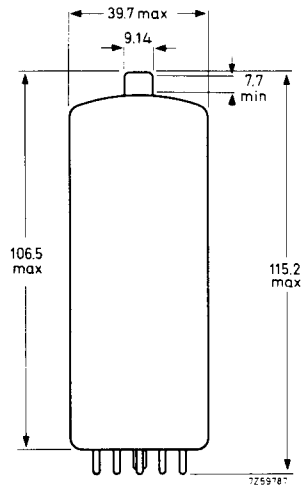
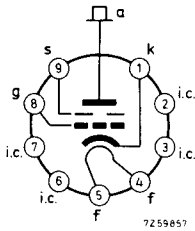
I_f	300	mA
V_f	7.3	V

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 mA to 1.5 mA	ΔV_g	max. 10	V
Grid voltage at $I_a = 1.5$ mA	V_g	-9 to -28	V
at $I_a = 0.1$ mA	V_g	max. -38	V

Data based on pre-production tubes

LIMITING VALUES (Design centre rating system unless otherwise specified)

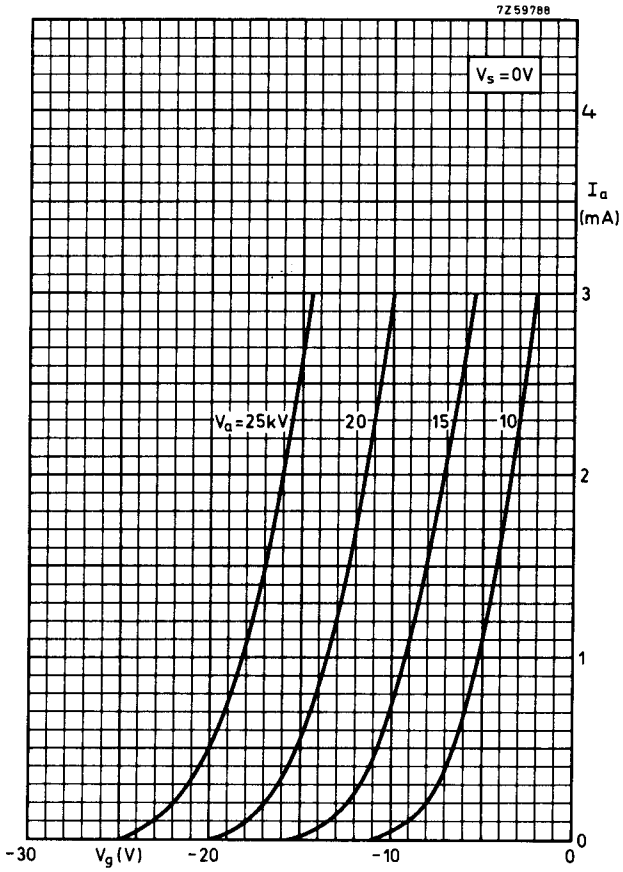
Anode voltage	V_a	max.	25	kV
Anode voltage (absolute max.)	V_a	max.	27.5	kV ¹⁾
Anode current	I_a	max.	1.6	mA
Anode dissipation	W_a	max.	30	W
Anode dissipation (absolute max.)	W_a	max.	40	W ²⁾
Negative grid voltage	$-V_g$	max.	150	V ³⁾
Grid resistor	R_g	max.	5	M Ω
Cathode to heater voltage				
cathode 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.	50	V ⁴⁾
Anode seal temperature (absolute max.)	t_s	max.	200	$^{\circ}\text{C}$

X-RAYS

When operating this tube will produce X-radiation, and a suitable screen may be required.

Because of the difference in X-ray characteristics the PD510 should never be replaced by a PD500 in equipment designed for the PD510.

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- 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 9 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.



PHILIPS

Data handbook



Electronic
components
and materials

PD510

page	sheet	date
1	1	1970.09
2	2	1970.09
3	3	1970.09
4	FP	1998.12.28