SHUNT STABILIZER TRIODE

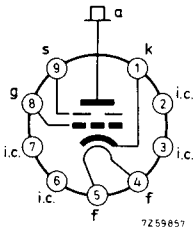
Shunt stabilizer triode intended for use in colour TV receivers.

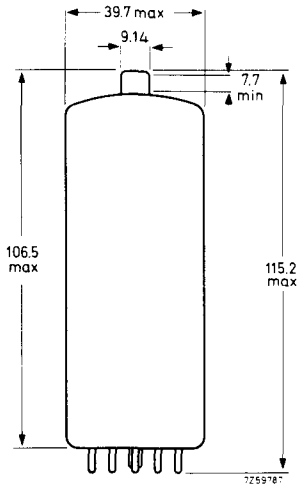
HEATING: Indirect by A.C. or D.C.; series supply

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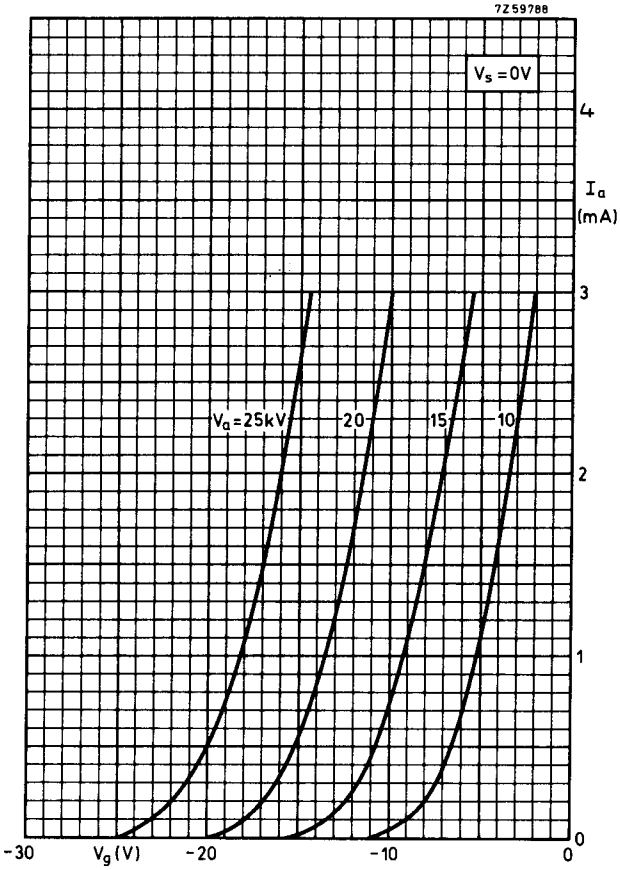
1) If due to a circuit failure the anode current becomes 0 mA the anode voltage should never exceed 45 kV (abs. max.)

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.


7Z59788
$V_s = 0V$
$V_a = 25kV$
20
15
10
I_a
(mA)
4
3
2
1
0
-30
V_g (V)
-20
-10
0