BOOSTER DIODE

Booster diode for timebase circuits of colour television receivers. The PY500A is unilaterally interchangeable with the PY500 in existing circuits. In new equipment designs the 300 Ω protection resistance between pins 3 and 5 can be deleted for the PY500A.

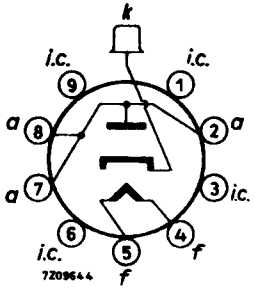
HEATING: Indirect by A.C. or D.C.; series supply

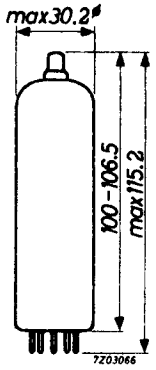
Heater current	I_f	300	mA
Heater voltage	V_f	42	V

MECHANICAL DATA Dimensions in mm

Base: Magnoval

Cap: Type 1





CAPACITANCES

Anode to cathode	C_{ak}	12.5	pF
Cathode to heater	C_{kf}	3.1	pF ←

TYPICAL CHARACTERISTICS

Internal resistance (I_a = 440 mA)	R_i	45.5	Ω

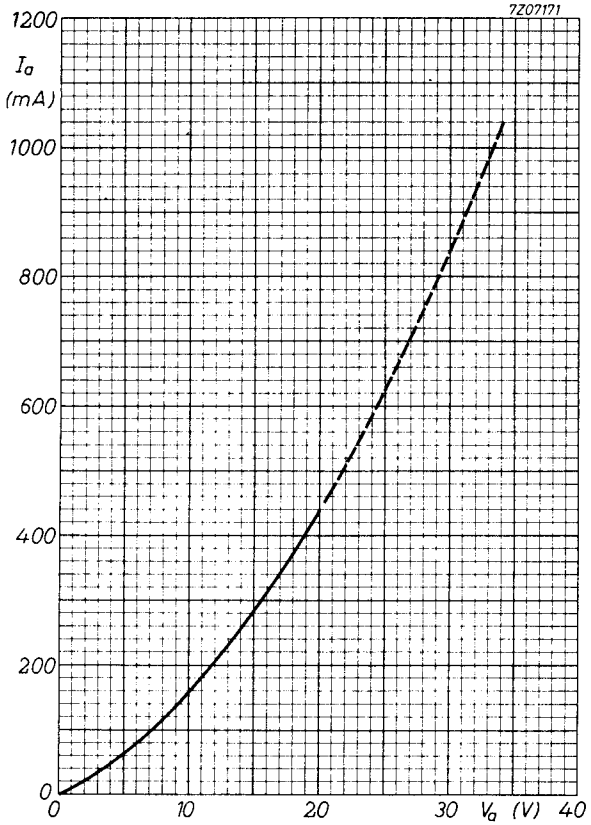
LIMITING VALUES (Design centre rating system)

Anode dissipation	W_a	max. 11	W
Anode current, average	I_a	max. 440	mA
peak	I_{a_p}	max. 1000	mA
Anode voltage, negative peak	$-V_{a_p}$	max. 5600	V [1]
negative peak (absolute max.)	$-V_{a_p}$	max. 7000	V [1]
Cathode to heater voltage, peak	V_{kfp}	max. 6300	V [1]

Series resistance heater chain

During operation, the external resistance between either heater pin of the PY500A and either mains terminal should be at least 100 Ω when Vf/earth = 220 V_{RMS}
50 Ω when Vf/earth = 110 V_{RMS}
The hot heater resistances of other tubes in the heater chain can serve for this purpose.

[1]) Max. pulse duration 22% of a cycle, but max. 18 μs.


7Z07171
1200
I_a
(mA)
1000
800
600
400
200
0
0
10
20
30
V_a (V)
40

PHILIPS

Data handbook

Electronic components and materials

PY500A

page	sheet	date
1	1	1970.08
2	2	1970.08
3	3	1970.08
4	FP	1999.02.24