

## 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  $300\ \Omega$  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

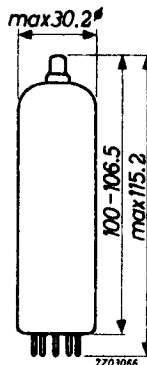
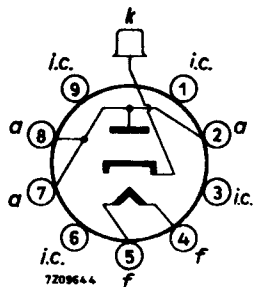
$V_f$  42 V

### 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 $\Omega$
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**LIMITING VALUES** (Design centre rating system)

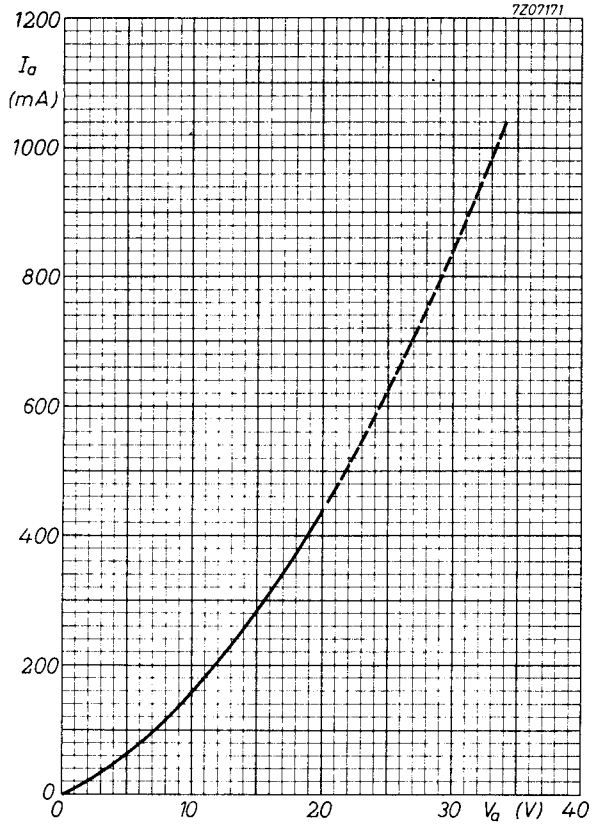
Anode dissipation	$W_a$	max. 11 W
Anode current, average	$I_a$	max. 440 mA
peak	$I_{ap}$	max. 1000 mA
Anode voltage, negative peak	$-V_{ap}$	max. 5600 V <sup>1)</sup>
negative peak (absolute max.)	$-V_{ap}$	max. 7000 V <sup>1)</sup>
Cathode to heater voltage, peak	$V_{kfp}$	max. 6300 V <sup>1)</sup>

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  $\Omega$  when  $V_f/\text{earth} = 220$  V<sub>RMS</sub>  
50  $\Omega$  when  $V_f/\text{earth} = 110$  V<sub>RMS</sub>

The hot heater resistances of other tubes in the heater chain can serve for this purpose.

<sup>1)</sup> Max. pulse duration 22% of a cycle, but max. 18  $\mu$ s.



# PHILIPS

Data handbook



Electronic  
components  
and materials

## PY500A

<b>page</b>	<b>sheet</b>	<b>date</b>
1	1	1970.08
2	2	1970.08
3	3	1970.08
4	FP	1999.02.24