

MAZDA**30P4****30P4**

TELEVISION BEAM POWER AMPLIFIER
Indirectly heated—for AC/DC series operation

GENERAL

The 30P4 is primarily intended for use in the Magnetic Scanning Line Output Stage of A.C./D.C. Television Receivers with series connected heaters.

RATING

			Note
Heater Current (amps)	I_h	0.3	
Heater Voltage (volts)	V_h	25	
Maximum Anode Voltage (volts)	$V_a(\text{max})$	400	(a)
Maximum Screen Voltage (volts)	$V_{g2}(\text{max})$	250	
Maximum Cathode Current (mA)	$I_k(\text{max})$	160	
Maximum Screen Dissipation (watts)	$P_{g2}(\text{max})$	4.0	
Maximum Anode Dissipation (watts)	$P_a(\text{max})$	10.0	
Maximum Peak Anode Voltage (Pulse positive) (volts)	$V_a(\text{pk}) \text{ max}$	6,000	(c)
Maximum Heater to Cathode (volts) (R.M.S.)	$V_{h-k}(\text{max})$	200	(b)
Maximum Grid to Cathode Circuit Resistance (Megohms)	$R_{g1-k}(\text{max})$	1.0	
Maximum Peak Screen Voltage (Pulse negative) (volts)	$V_{g2}(\text{pk}) \text{ max}$	2,000	

Rating (continued overleaf)

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NOTES

- V_a may be increased to 550v. where a "recovered Voltage" of more than 200 volts is available.
- Heater Cathode voltage is measured with respect to the higher potential heater pin.
- Rated for Television Line Scan where the duty cycle does not exceed 15% and the pulse duration does not exceed 15 microseconds.

The maximum rating of 6 kV is a design centre rating. The absolute rating of 7.5 kV maximum must not be exceeded.

INTER-ELECTRODE CAPACITANCES (pF)

Control Grid to Earth	c_{in}	20.0
Anode to Earth	c_{out}	10.0
Anode to Control Grid	c_{a-g_1}	0.3

"Earth" denotes the remaining earthy potential electrodes, heater and shields connected to cathode.

DIMENSIONS

Maximum Overall Length (mm)	113
Maximum Diameter (mm)	32
Maximum Seated Height (mm)	99
Approximate Nett Weight (ozs)	1½
Approximate Packed Weight (ozs)	4

MOUNTING POSITION

If mounted horizontally it is recommended that pins 4 and 8 should be in a vertical plane.

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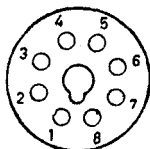
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BULB—Clear

TOP CAP—CT1

BASE—International Octal (IO7)



Viewed from Free End of Pins

CONNECTIONS

Pin 1	No connection	NC
Pin 2	Heater	h
Pin 3	Internal Connection†	IC
Pin 4	Screen Grid	g2
Pin 5	Control Grid	g1
Pin 6	No Pin	NP
Pin 7	Heater	h
Pin 8	Cathode	k
Top Cap	Anode	a

† "Internal connection" indicates that the pin is connected internally to an electrode for the purpose of improving mechanical rigidity of the valve. The connection may not always be made to the same electrode on a given valve type and it is essential that the corresponding valve holder socket be left unconnected.

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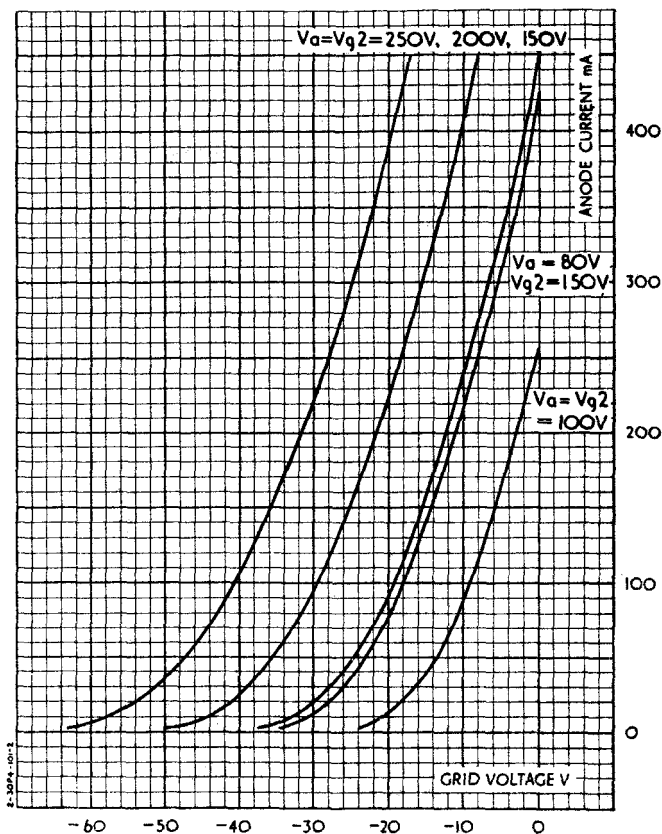
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AVERAGE CHARACTERISTIC CURVES: I_a/V_g



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AVERAGE CHARACTERISTIC CURVES: I_a/V_a
 $V_{g2} = 150V$

