

# MAZDA

## 30P4

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

---

30P4

### 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)	$V_a(\max)$	400	(a)
Maximum Screen Voltage (volts)	$V_{g_2}(\max)$	250	
Maximum Cathode Current (mA)	$I_k(\max)$	160	
Maximum Screen Dissipation (watts)	$P_{g_2}(\max)$	4.0	
Maximum Anode Dissipation (watts)	$P_a(\max)$	10.0	
Maximum Peak Anode Voltage (Pulse positive) (volts)	$V_a(\text{pk}) \max$	6,000	(c)
Maximum Heater to Cathode (volts) (R.M.S.)	$V_{h-k}(\max)$	200	(b)
Maximum Grid to Cathode Circuit Resistance (Megohms)	$R_{g_1-k}(\max)$	1.0	
Maximum Peak Screen Voltage (Pulse negative) (volts)	$V_{g_2}(\text{pk}) \max$	2,000	

Rating (continued overleaf)

**MAZDA****30P4****TELEVISION BEAM POWER AMPLIFIER**  
Indirectly heated—for AC/DC series operation**NOTES**

- (a)  $V_a$  may be increased to 550v. where a "recovered Voltage" of more than 200 volts is available.
- (b) Heater Cathode voltage is measured with respect to the higher potential heater pin.
- (c) 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.

# EDISWAN

MAZDA

## 30P4

### TELEVISION BEAM POWER AMPLIFIER

Indirectly heated—for AC/DC series operation

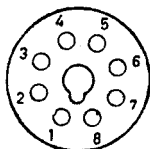
---

30P4

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

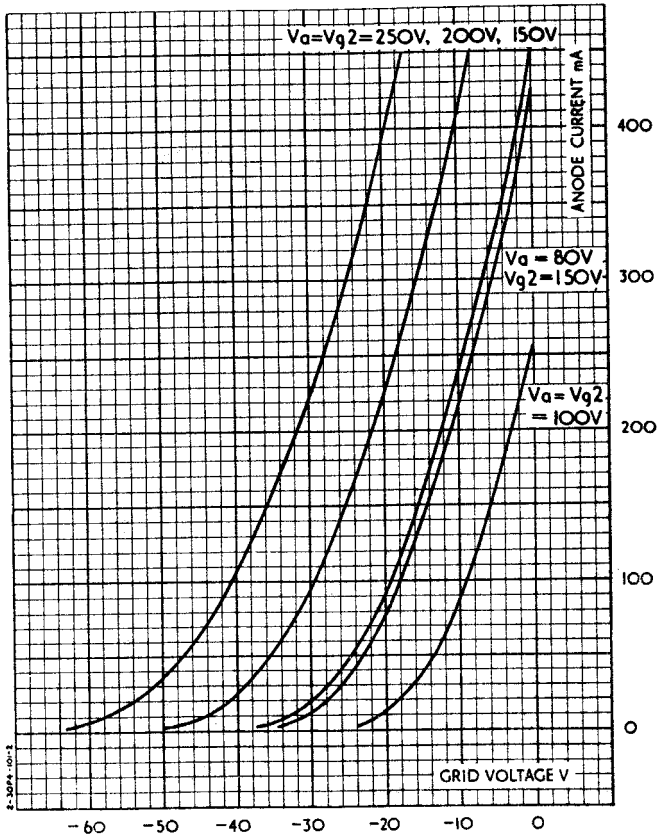
† "Internal connection" indicates that the pin is connected internally to an electrode for the purpose of improving mechanical rigidity of the valve. The connection may not always be made to the same electrode on a given valve type and it is essential that the corresponding valve holder socket be left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

30P4

# EDISWAN MAZDA 30P4

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

AVERAGE CHARACTERISTIC CURVES:  $I_a/V_g$



# EDISWAN

MAZDA

## 30P4

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

30P4

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

