EDISWAN

MAZDA

10C2

TELEVISION TRIODE PENTODE

Indirectly heated—for series operation

RATING			Triode	Pentode
Heater Current	(amps)	I_h	0.1	
Heater Voltage	(volts)	V_h	28.0	
Maximum Anode Voltage	(volts)	$V_{a(max)}$	150	250
Maximum Screen Voltage	(volts)	$V_{g2(max)}$		250
Maximum Anode Dissipation	(watts)	$P_{a(max)}$		1.0
Maximum Screen Dissipation	(watts)	$P_{g2(max)}$		0.5
Mutual Conductance	(mA/V)	g_m	4.0*	
Amplification Factor		μ	17	
Maximum Heater to Cathode Voltage	(volts) r.m.s.	V_{h-k} (r.m.s.)	200**	

* Measured at V_a=100v ; V_g=0.

** Measured with respect to the higher potential heater pin.

INTER-ELECTRODE CAPACITANCES (pF)

Triode Section		†	‡
Anode/Earth	$c_{out(t)}$	1.6	2.9
Anode/Grid	$c_{a(t),g(t)}$	1.7	1.9
Grid/Earth	$c_{in(t)}$	4.1	5.4
Pentode Section			
Anode/Earth	$c_{out(p)}$	2.6	4.1
Anode/Grid 1	$c_{a(p),g1(p)}$	0.012	0.0135
Grid 1/Earth	$c_{in(p)}$	7.5	9.0
Pentode Grid/Triode Grid	$c_{g1(p),g(t)}$	0.55	0.56
Pentode Grid/Triode Anode	$c_{g1(p),a(t)}$	0.030	0.031
Pentode Anode/Triode Anode	$c_{a(p),a(t)}$	0.12	0.32

Inter-Electrode Capacitances continued overleaf.

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† Inter-electrode capacitances with holder capacity balanced out.

‡ These capacitances include a Benjamin B8A holder, measured at a frequency of 1 Mc/s.

" Earth " denotes electrodes of any second valve section and the remaining earthy potential electrodes of the section under measurement, heater and shields joined to cathode.

DIMENSIONS

Maximum Overall Length	(mm)	67
Maximum Diameter	(mm)	22
Maximum Seated Height	(mm)	54
Radius over Location Key	(mm)	12.25
Approximate Nett Weight	(ozs)	$\frac{3}{4}$
Approximate Packed Weight	(ozs)	1

MOUNTING POSITION

Unrestricted.

TYPICAL OPERATION

As a frequency changer with oscillator volts applied to Grid 1.

Pentode Section

Anode Voltage	(volts)	$V_{a(p)}$	135	150
Screen Voltage	(volts)	$V_{g2(p)}$	135	150
Grid Circuit Resistance for Grid Current Bias	(kΩ)	R_{g1}	15	68
Grid Current	(μA)	I_{g1}	180	45
Conversion Conductance	(mA/V)	g_c	2	2.1
Peak Heterodyne Voltage	(volts)	$V_{(pk)het}$	3.25	3.25
Approximate Anode Current	(mA)	$I_{a(p)}$	5.0	4.7
Approximate Screen Current	(mA)	$I_{g2(p)}$	1.5	1.3
Equivalent Grid Noise Resistance	(kΩ)	r_{eq}	5.8	5.3 ←

Triode Section

Anode Voltage	(volts)	$V_{a(t)}$	80
Average Anode Current	(mA)	$I_{a(t)}$	5

← indicates a change

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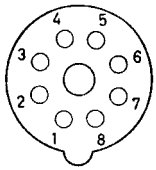
BULB Clear.

BASE B8A.



Viewed from free end of pins

CONNECTIONS

Pin 1	Heater	h
Pin 2	Pentode Anode	a_p
Pin 3	Triode Anode	a_t
Pin 4	Triode Grid	g_t
Pin 5	Pentode Screen Grid	$g_{2(p)}$
Pin 6	Pentode Grid	$g_{1(p)}$
Pin 7	Cathode and Shield	k,s
Pin 8	Heater	h