

MAZDA

11.E.3

BEAM POWER AMPLIFIER

Indirectly heated - for Pulse Amplification

RATING

Heater Voltage (volts)	V _h	4.2
Heater Current (amps)	I _h	2.5
Maximum Anode Voltage as Series Modulator (volts DC)	V _a (max)	3,500
Maximum Peak Anode Voltage as Break Modulator (volts)	V _a (pk)max	12,500
Maximum Screen Voltage (volts)	V _{g2} (max)	700
Maximum Control Grid Negative Bias (volts-ve)	V _{g1} (max)	-700
Maximum Peak Cathode Current (amps)	I _k (pk)max	† 3.5
Inner μ	μ_{g1-g2}	† 9.0
Maximum Anode Dissipation (watts)	W _a (max)	10.0
Maximum Screen Dissipation as Series Modulator (watts)	W _{g2} (max)Series	0.9
Maximum Screen Dissipation as Break Modulator (watts)	W _{g2} (max)Break	2.0
Maximum Potential Heater/Cathode (volts DC)	V _{h-k} (max)	150

† Taken under Pulse Conditions of approximately 10 micro-seconds duration and 400:1 minimum off-on ratio.

: Taken at V_a = 200; V_{g2} = 200; I_a = 40 mA.

INTER-ELECTRODE CAPACITANCES

Anode/Earth (μ F)	C _{out}	7.5
Anode/Control Grid (μ F)	C _{a-g1}	0.26
Control Grid/Earth (μ F)	C _{in}	20

"Earth" denotes the remaining earthy potential electrodes and heater joined to cathode.

DIMENSIONS

Maximum Overall Length (mm)	140
Maximum Diameter (mm)	54
Maximum Seated Height (mm)	125
Approximate Nett Weight (ozs)	2½
Approximate Packed Weight (ozs)	7

MOUNTING POSITION - Vertical

NOTE

This valve is intended for use as a break or series modulator with a short duration pulse input signal. When the equipment may be subjected to reduced atmospheric pressures the peak voltage between the control grid and Screen grid should not exceed 1,200 volts.

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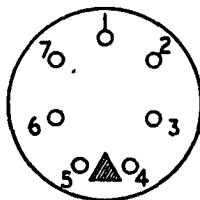
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TYPICAL OPERATION

		<u>Series Modulator</u>	<u>Break Modulator</u>
Quiescent Anode Voltage (volts)	$V_a(o)$	3,500	500
Screen Voltage (volts): Signal Voltage Positive (volts)	V_{g2}	500	500
Peak Anode Current (amps)	$I_a(pk)$	50	25
Approximate Knee Voltage (volts)		2	1
Peak Anode Output Voltage (volts)		200	
Approximate Peak Grid Current (amps)	$I_{g1}(pk)$	3,300	10,000
		0.12	0.05

CAP EVA StandardBULB ClearBASE British 7 Pin.

Viewed from free end of pins.

CONNEXIONS

Pin 1	Blank	-
Pin 2	Control Grid	g1
Pin 3	Blank	-
Pin 4	Heater	h
Pin 5	Heater	h
Pin 6	Cathode	k
Pin 7	Screen Grid	g2
Top Cap	Anode	a