

MAZDA

12.E.1

BEAM TETRODE

Indirectly heated—for parallel operation

TENTATIVE

GENERAL

The 12.E.1 is intended for use as a series or shunt control valve in stabilised power packs.

RATING

Heater Voltage (volts)	V_h	6.3
Heater Current (amps)	I_h	1.6
Maximum Anode Voltage (volts)	$V_a(\max)$	800
Maximum Screen Voltage (volts)	$V_{g2}(\max)$	300
Maximum Control Grid Voltage	$V_{g1}(\max)$	100
Maximum Voltage between g_1 and g_2 (volts)	V_{g1-g2}	400
Mutual Conductance (mA/V)	g_m	14
Maximum Anode Dissipation (watts)	P_a	35
Maximum Screen Dissipation (watts)	P_{g2}	5.0
Maximum Cathode Current (mA)	$I_k(\max)$	300
Maximum Potential Heater/Cathode (volts DC)	$V_{h-k}(\max)t$	300

* Taken at $V_a = V_{g2} = 150V, I_a = 200$ mA.

[Provided the cathode is positive.

INTER-ELECTRODE CAPACITANCES

Grid/Earth (μF)	C_{in}	23.0
Anode/Earth (μF)	C_{out}	8.3
Anode/Grid (μF)	$C_{a,g1}$	1.3

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

DIMENSIONS

Maximum Overall Length (mm)	150
Maximum Diameter (mm)	54
Maximum Seated Height (mm)	136
Approximate Nett Weight (ozs)	2½
Approximate Packed Weight (ozs)	7

MOUNTING POSITION - Vertical

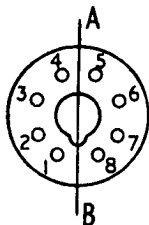
If run horizontally then the axis AB must be on a horizontal plane.

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TENTATIVEBULB ClearTOP CAP American miniatureBASE International Octal (IO8)

Viewed from free end of pins.

CONNEXIONS

Pin 1	-	-
Pin 2	Heater	h
Pin 3	-	-
Pin 4	Screen Grid	g2
Pin 5	Control Grid	g1
Pin 6	-	-
Pin 7	Heater	h
Pin 8	Cathode	k
Top Cap	Anode	a

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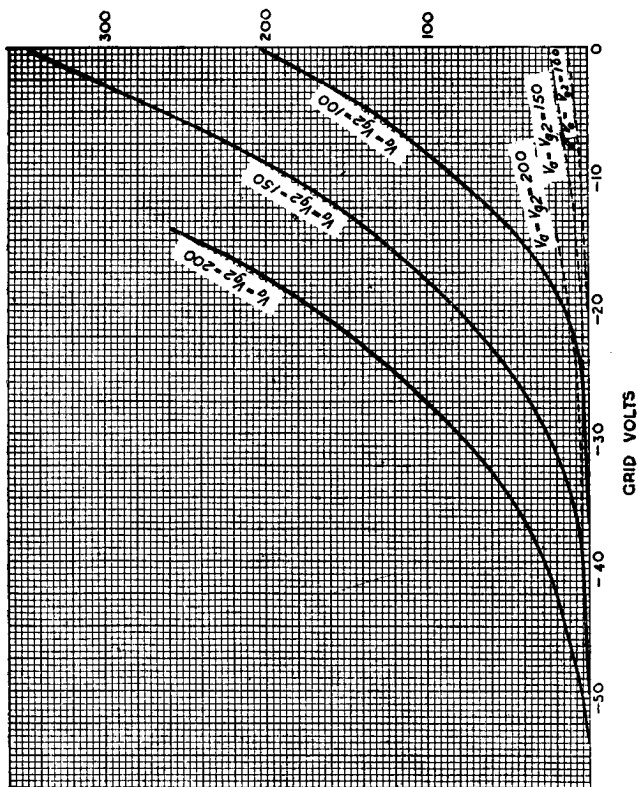
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**TENTATIVE
AVERAGE CHARACTERISTIC CURVES**

Key { — Anode Current
----- Screen Current



ANODE AND SCREEN CURRENTS IN mA

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**TENTATIVE
AVERAGE CHARACTERISTIC CURVES**Curves taken at $V_{g2} = 150\text{v}$.

Key { — Anode Current
 ---- Screen Current

