MAZDA

10.LD.3

DOUBLE DIODE TRIODE

Indirectly heated—for series operation

RATING

Heater Current (amps)	I_h	0.1
Heater Voltage (volts)	V_h	14
Maximum Anode Voltage (volts)	$V_{a(max)}$	250
Maximum Cathode Current (mA)	$I_{k(av)max}$	5
Mutual Conductance (mA/V)	g_m •	1.4
Anode Impedance (ohms)	r_a •	50,000
Amplification Factor	u •	70
Maximum Mean Diode Current per Diode (mA)	$I_{a(d)av(max)}$	0.8
Maximum Potential Heater/Cathode (volts RMS)	$V_{h-k(max)}$ ••	150
Maximum Anode Dissipation (watts)	$P_{a(max)}$	1.0

• Taken at V_a = 100v; V_g = -1

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

INTER-ELECTRODE CAPACITANCES

			à	$
Anode/Earth	(μμF)	$c_{out(t)}$	1.9	3.2
Anode/Grid	(μμF)	c_{ag}	1.3	1.5
Grid/Earth	(μμF)	$c_{in(t)}$	3.0	4.3
Grid/Diode 1	(μμF)	$c_{g,a'(d)}$	< 0.007	< 0.009
Grid/Diode 2	(μμF)	$c_{g,a''(d)}$	< 0.03	< 0.04
Diode 1/Earth	(μμF)	$c_{in(a'd)}$	1.2	2.5
Diode 1/Diode 2	(μμF)	$c_{a'(d),a''(d)}$	< 0.3	< 0.5
Diode 2/Earth	(μμF)	$c_{in(a''d)}$	1.1	2.4
Anode/Diode 1	(μμF)	$c_{a,a'(d)}$	< 0.01	< 0.011
Anode/Diode 2	(μμF)	$c_{a,a''(d)}$	< 0.01	< 0.011

à Inter-electrode capacitances with holder capacitance balanced out.

$ These capacitances include a Benjamin B.8.A. 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)	60
Maximum Diameter	(mm)	22
Maximum Seated Height	(mm)	53
Radius Over Location Key	(mm)	12.25
Approximate Nett Weight	(ozs)	¼
Approximate Packed Weight	(ozs)	1

MOUNTING POSITION - Unrestricted.

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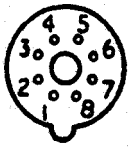
TYPICAL OPERATION

H.T. Voltage after de-coupling (volts)	$V_{a(b)}$	150	150
Anode Load (ohms)	R_a	220,000	100,000
Anode Current (mA)	I_a	0.32	0.5
Cathode Self Bias Resistance (ohms)	R_k	3,900	2,200
Grid Resistance of following valve (ohms)	R_g	680,000	330,000
Voltage Amplification		44	40
Output Voltage (RMS) for 5% Second Harmonic		16.5	12

BULB Clear

BASE B.8.A



Viewed from free end of pins.

CONNEXIONS

Pin 1	Heater ‖	h
Pin 2	Anode	a
Pin 3	Control Grid	g1
Pin 4	Internal Shield	s
Pin 5	Diode 2 ‡	a"d
Pin 6	Diode 1	a'd
Pin 7	Cathode	k
Pin 8	Heater ‖	h

‖ Pin 1 should be connected to the earthy end of the heater chain.

‡ It is recommended that Diode 2 should be used for detection.