

MAZDA

HL21/DD & L21/DD

Double-diode Triodes

RATING.	HL21/DD	L21/DD
Filament Voltage	2.0	2.0
Filament Current (Amps.)	0.15	0.15
Maximum Anode Volts	150	150
Amplification Factor	32	19
Mutual Conductance (ma/V)	1.5	1.9
*Anode A.C. Resistance	21,000	10,000

* at $V_a=100$; $V_g=0$.

INTER ELECTRODE CAPACITIES.

Anode to Grid	3.5 $\mu\mu\text{F}$.	3.25 $\mu\mu\text{F}$.
Anode to Filament	4.0 $\mu\mu\text{F}$.	4.0 $\mu\mu\text{F}$.
Grid to Filament	2.5 $\mu\mu\text{F}$.	2.5 $\mu\mu\text{F}$.
Diode to Filament	3.75 $\mu\mu\text{F}$.	3.75 $\mu\mu\text{F}$.

DIMENSIONS.

Maximum Overall Length	117 m.m.	117 m.m.
Maximum Diameter	39 m.m.	39 m.m.

PRICE

9/-

9/-

GENERAL.

The Mazda Valve Types HL21/DD and L21/DD are double diode triode valves for battery operation. The diodes operate on a separate filament so that a very high diode efficiency, completely independent of the triode operating conditions, is obtained.

The Mazda Valve Type L21/DD is suitable for use as a driver valve for Class B operation.

Both valves are metallised in order to eliminate the possibility of external interference.



THE EDISON SWAN ELECTRIC CO. LTD.]
Radio Division Showrooms:

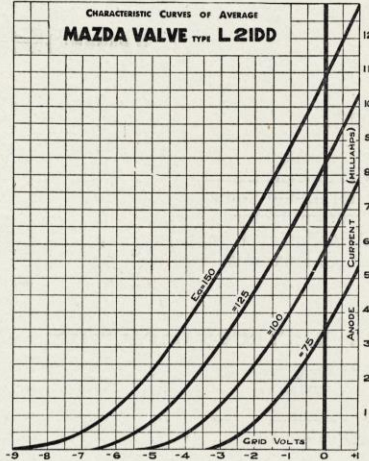
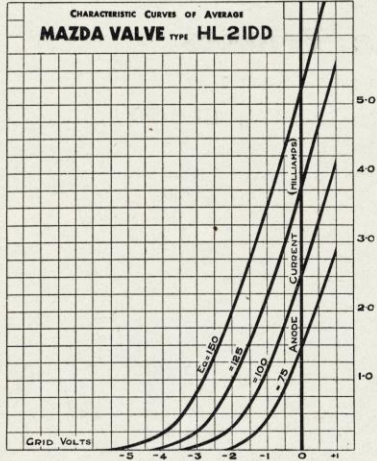
! 155 Charing Cross Road, London, W.C.2
Showrooms in all the Principal Towns
Mazda Valves are manufactured in Great Britain for
The British Thomson-Houston Co., Ltd.,
London and Rugby

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MAZDA

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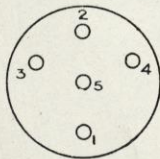


APPLICATION.

The Mazda Valve Types HL21/DD and L21/DD are recommended for performing the simultaneous functions of detection, automatic volume control, and audio frequency amplification. They possess the advantage over the Mazda Valve Type L2/DD, that the diode section is completely independent of triode section and transformer or resistance coupling may be used in the triode anode circuit. A lower anode current can thus be employed with consequent economy in battery consumption.

A suitable circuit is given in the Mazda Valve Type L2/DD descriptive leaflet. Care must be exercised in the use of the diodes owing to the different potentials at which diode anode current starts. Pin No. 3 must always be connected to filament negative and the diode connected to Pin No. 5 used for detection and that connected to Pin No. 2 for automatic volume control. The detector diode load resistance should be returned to the negative terminal of the L.T. battery. The A.V.C. diode anode current starts at approximately 0.7 volts positive so that it gives a delay voltage of 0.7 volts, which when used in conjunction with a high frequency valve requiring an initial bias of $1\frac{1}{2}$ volts gives an effective delay voltage of 2.2 volts.

The triode sections of the Mazda HL21/DD and L21/DD are similar to those of the Mazda HL.2 and L.2 valves respectively. The operating conditions of the Mazda L21/DD as a driver valve for a Class B stage are the same as those for the Mazda Valve Type L2.



CONNECTIONS TO BASE.

- | | |
|--------------------------|----------------------------|
| Pin No. 1.—Triode Anode. | Pin No. 4.—Filament +ve. |
| Pin No. 2.—A.V.C. Diode. | Pin No. 5.—Detector Diode. |
| Pin No. 3.—Filament -ve. | Top Cap. Control Grid. |

The figure "3" is moulded in the base adjacent to Pin No. 3.

