



## HL.23

### BATTERY ECONOMY TRIODE

#### RATING.

Filament Voltage	...	...	...	...	...	2.0
Filament Current (amps.)	...	...	...	...	...	0.05
Maximum Anode Voltage	...	...	...	...	...	150
*Mutual Conductance (mA/V)	...	...	...	...	...	1.5
*Amplification Factor	...	...	...	...	...	32
*Anode A.C. Resistance (ohms)	...	...	...	...	...	21,000

\*At  $E_a=100$  ;  $E_g=0$ .

#### OPERATING CONDITIONS.

H.T. Voltage	...	...	...	...	120	120
Anode Load (ohms)	...	...	...	...	50,000	100,000
Grid Bias	...	...	...	...	1.5	1.0
Anode Current (mA)	...	...	...	...	0.5	0.45

#### INTER-ELECTRODE CAPACITIES.

Anode to Cathode	...	...	...	...	5.25	$\mu\mu\text{F.}$
Grid to Cathode	...	...	...	...	2.75	$\mu\mu\text{F.}$
Anode to Grid	...	...	...	...	5.0	$\mu\mu\text{F.}$

#### DIMENSIONS.

Maximum Overall Length	...	...	...	...	85	mm.
Maximum Diameter	...	...	...	...	32	mm.

#### GENERAL.

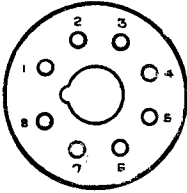
The HL.23 is a general purpose triode for use in battery operated receivers. The special feature of this valve is that it has been designed for battery economy, and due to the exceptionally low filament consumption is therefore particularly recommended for use in battery portable receivers. The bulb is of small dimensions and metallised. The valve is fitted with a British Octal Base, the connections to which are given overleaf

#### APPLICATION.

Owing to its high mutual conductance, coupled with a comparatively low anode A.C. resistance, the HL.23 will be found suitable for use in either the oscillator, detector or L.F. positions in a receiver. When used as an oscillator, the grid leak should be returned to L.T. positive. This connection should also be employed when the valve is used as a cumulative grid detector, although in some receivers, in order to obtain the smoothest possible reaction control, it may be desirable to return the grid leak tapping on a potentiometer across the L.T. battery. Normal practice should be followed when the valve is used as an L.F. amplifier, and representative operating conditions are given above.

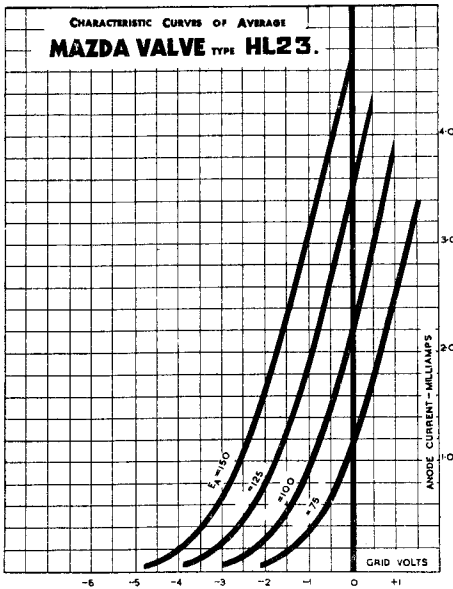


**BASING.**



- Pin No. 1. Filament.
- 2. Omitted.
- 3. Anode.
- 4. Omitted.
- 5. Control Grid.
- 6. Metallising.
- 7. Omitted.
- 8. Filament.

Viewed from the free end of the base.



*Mazda Radio Valves are manufactured in Great Britain for the British Thomson-Houston Co. Ltd., London and Rugby.*