PHILIPS

1AH5

DIODE - A.F. PENTODE

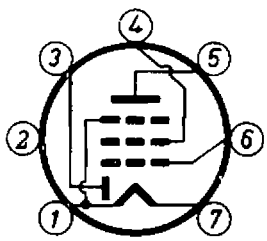
Physical Specifications

Filament	Coated
Base	Miniature button 7-pin
Bulb	T5½
Maximum overall length	2.205"
Maximum seated height	1.955"
Bulb length excluding tip	1.580" ± 0.094"
Maximum diameter	3/4"
Mounting position	any
Basing connections - JETEC basing designation	7DJ

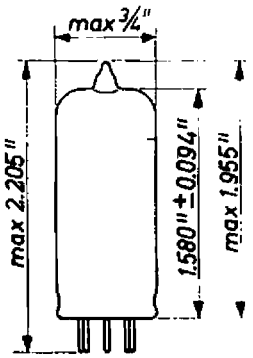
Pin 1 - grid No.3 and filament (-)
Pin 2 - not connected
Pin 3 - diode plate
Pin 4 - grid No.2
Pin 5 - plate
Pin 6 - grid No.1
Pin 7 - filament (+)

The diode is located at the negative end of the filament.

Bottom view of base



Tube outline



General Electrical Data

Filament data

Filament voltage		1.4 volts
Filament current		25 ma

Direct Interelectrode Capacitances

Grid No.1 to all other elements		2.1 µµF
Plate to all other elements		2.9 µµF
Plate to grid No.1	max.	0.3 µµF
Diode plate to all other elements		1.0 µµF
Diode plate to pentode plate	max.	0.9 µµF
Diode plate to pentode grid	max.	0.03 µµF

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Ratings of the pentode section (Design center values)			
Battery voltage	max.	90	volts [1]
Plate voltage	max.	90	volts
Plate dissipation	max.	0.03	watt
Grid No.2 voltage	max.	90	volts
Grid No.2 dissipation	max.	0.01	watt
Cathode current	max.	0.25	ma
Grid current starting point. Grid No.1 voltage when grid No.1 current = +0.3 μ amp	max.	-0.2	volt
Grid No.1 circuit resistance	max.	10	megohms [2]

Ratings of the diode section (Design center values)			
Peak inverse plate voltage	max.	100	volts
Plate current	max.	0.2	ma
Peak plate current	max.	1.2	ma

Filament ratings			
Filament voltage	min.	1.1	volts
	max.	1.6	volts

Operating conditions for use as resistance-coupled amplifier			
Supply voltage [3]	64	85	volts
Load resistance	1	1	megohm
Grid No.2 resistor [4]	3.3	3.3	megohms
Grid No.1 resistor	10	10	megohms
Grid No.1 resistor of the following tube	2	2	megohms
Plate current	32	50	μamps
Grid No.2 current	9	15	μamps
Amplification	52	62	
Distortion at an output voltage of 5 volts	2.5	1.2	%

The tube can be used without special precautions against microphony in circuits in which the input voltage exceeds 20 m volts for an output of 50 m watts of the output tube.

[1]) The absolute permissible maximum of the battery voltage is 110 volts.

[2]) Only for grid biasing.

[3]) Based on a battery voltage of 67.5 or 90 volts decreased with the negative bias for the output tube.

[4]) Decoupled by a capacitor of 0.47 μF.

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