

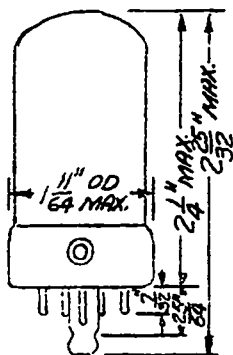
7B6

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TENTATIVE DATA
RAYTHEON TYPE 7B6

DUO-DIODE TRIODE
DETECTOR AMPLIFIER
Heater Type

Glass Bulb Loktal Base



The 7B6 is a duo-diode triode type amplifier tube designed for use as a combined diode detector, avc rectifier and resistance-coupled audio frequency amplifier in radio receivers.

NOMINAL RATINGS

Heater Voltage (a-c or d-c)	7.0	volts
Heater Current	0.32	amp

DIRECT INTERELECTRODE CAPACITANCES (NOMINAL) - TRIODE SECTION

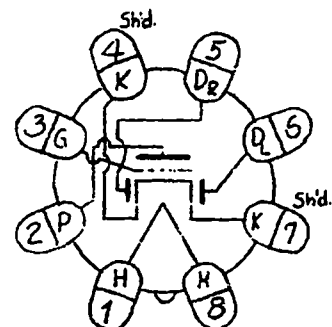
G to P (Grid to Plate)	1.5	μmf
G to K (Input Electrode)	3.0	μmf
P to K (Output Electrode)	3.0	μmf

TYPICAL AMPLIFIER - CLASS A CONDITIONS - TRIODE SECTION

Heater Voltage	6.3	volts
Heater Current	0.3	amp
Plate Voltage	250 max.	volts
Grid Bias	-2	volts
Amplification Factor	100	
Plate Resistance	91000	ohms
Transconductance	1100	μmhos
Plate Current	1	ma

DIODE SECTION

The two diodes are independent of each other and of the triode section except for the common cathode. The diodes may be used as a half wave or a full wave rectifier; or one diode may be used as a half wave rectifier for detection and the other diode used as a rectifier to obtain delayed AVC voltage.



BOTTOM VIEW OF SOCKET

from RMA release #162, Feb. 16, 1939

JETEC DATA
 JOINT ELECTRON TUBE ENGINEERING COUNCIL
 COMMITTEE ON RECEIVING TUBES

RCA Laboratories Div.
 Newark, N. J. Industry Serv. Lab.
 162A
 JEP 7B6 8 1958
 May 10, 1948
 FILE:

JETEC TYPE 7B6

DOUBLE DIODE TRIODE

MECHANICAL DATA

Coated unipotential cathode		
Outline drawing	9-30	Bulb. T-9
Base.		D8-1 lock-in 8-pin
Maximum diameter		1-3/16"
Maximum overall length		2-25/32"
Maximum seated height		2-1/4"
Pin connections		Basing 8W-L-7
Pin 1 + Heater		Pin 5 - #2 diode plate
Pin 2 - Triode plate		Pin 6 - #1 diode plate
Pin 3 - Triode grid		Pin 7 - Cathode, internal shield
Pin 4 - Internal connection		Pin 8 - Heater
Mounting position		any

ELECTRICAL DATA

Direct Interelectrode Capacitances*

Diode input (each unit): (lp or 2p to h+k)	1.7	μf
Triode grid to #1 diode plate (g to lp) (max.)	0.01	μf

*External shield #308 connected to pin 7.

Ratings

Heater voltage (nominal) (ac or dc)	7.0	volts
Maximum heater-cathode voltage	90	volts
Maximum plate voltage	300	volts
Maximum plate dissipation	0.5	watt
Maximum positive dc grid voltage	0	volts
Maximum diode current each plate for continuous operation . . .	1.0	ma

Typical Operating Conditions and Characteristics, Class A1 Amplifier

Heater voltage (ac or dc)	6.3	6.3	volts
Heater current	300	300	ma
Plate voltage	100	250	volts
Grid voltage	-1	-2	volts
Plate resistance (approx.)	110,000	91,000	ohms
Transconductance	900	1100	μmhos
Plate current	0.4	0.9	ma
Amplification factor	100	100	
Average diode current each plate with 10 volts dc applied 2.0		2.0	ma

Refer to "Interpretation of Receiving Tube Ratings"