

Hygrade Sylvania

CORPORATION

TECHNICAL DATA

SYLVANIA TYPE 7A4

General Purpose Amplifier

TENTATIVE CHARACTERISTICS

Heater Voltage AC or DC (Nominal)	7.0	Volts
Heater Current (Nominal)	0.32	Ampere

Direct Interelectrode Capacitances:

Grid-Plate	4.0	$\mu\mu\text{F.}$
Grid-Cathode	3.4	$\mu\mu\text{F.}$
Plate-Cathode	3.0	$\mu\mu\text{F.}$

OPERATING CONDITIONS AND CHARACTERISTICS

Class A Amplifier

Heater Voltage	6.3	6.3	Volts
Plate Voltage	90	250	Volts Max.
Grid Voltage	0	-8	Volts
Plate Current	10	9	Ma.
Plate Resistance	6700	7700	Ohms (Approx.)
Mutual Conductance	3000	2600	μmhos (Approx.)
Amplification Factor	20	20	

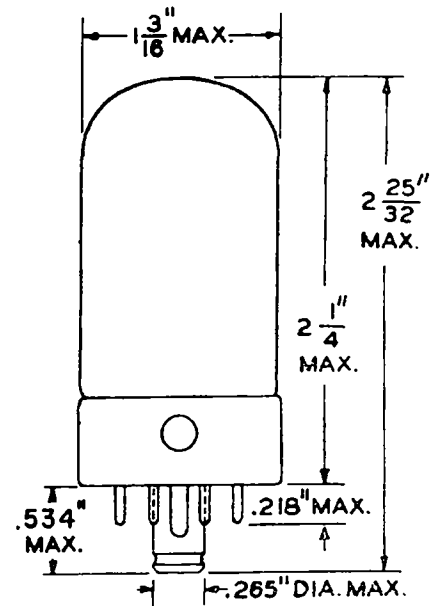
Note: For household receivers, ratings marked maximum are design centers for a line voltage of 117 volts. For automotive service the design centers are 90% of the values indicated using a battery terminal voltage of 6.6 volts.

CIRCUIT APPLICATION

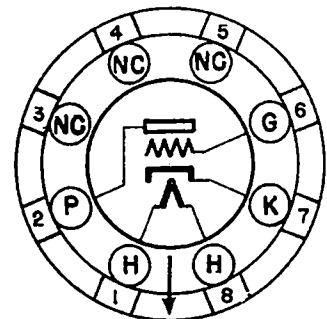
Sylvania Type 7A4 is a new single-ended supertriode amplifier detector having electrical characteristics and applications similar to those for Type 6J5G.

Although this tube has the same amplification factor as Type 6C5G the mutual conductance has been substantially increased with corresponding reduction in plate impedance. The output capacity is about one-third that of Type 6C5G and the tube design is such that the Type 7A4 should be especially applicable in ultra high frequency equipment.

The new loctal construction employed in Type 7A4 provides compactness, suitable shielding, and the lock-in feature. For a-c service the 7-volt heater rating corresponds to a 130-volt line condition. It is also the nominal voltage for automotive receiver service.



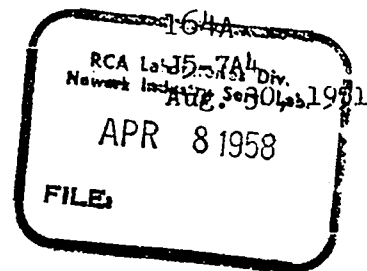
TUBE AND BASE DIAGRAM
(BOTTOM VIEW)



JETEC DATA
JOINT ELECTRON TUBE ENGINEERING COUNCIL
COMMITTEE ON RECEIVING TUBES

JETEC TYPE 7A4

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 5AC
Pin 1 - Heater	Pin 5 - No connection
Pin 2 - Plate	Pin 6 - Grid
Pin 3 - No connections	Pin 7 - Cathode
Pin 4 - No connection	Pin 8 - Heater
Mounting position.	any

ELECTRICAL DATA

Direct Interelectrode Capacitances*

Grid to plate: (g to p)	4.0	μf
Input: g to (h+k)	3.4	μf
Output: p to (h+k)	3.0	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.	2.5	watts
Maximum positive dc grid voltage	0	volts

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.	90	250	volts
Grid voltage	0	-8	volts
Plate resistance (approx.)	6700	7700	ohms
Transconductance	3000	2600	μmhos
Plate current.	10	9	ma
Amplification factor	20	20	

Refer to "Interpretation of Receiving Tube Ratings"