RMA Release # 284 Nov. 7, 1941

HYGRADE SYLVANIA CORPORATION
TECHNICAL DATA
SYLVANIA TYPE 14W7

Amplifier Pentode

Physical Specifications

Coated Unipotential Cathode	
Base	Lock-In 8-pin
Bulb	T-9
Maximum Diameter	1 3/16"
Maximum Overall Length	2 25/32"
Maximum Seated Height	2 1/4"
Pin Connections:	RMA Basing 8BJ-L-5

Pin 1 - Heater	Pin 5 - Internal Shield & Grid #4
Pin 2 - Plate	Pin 6 - Grid #1
Pin 3 - Grids #2 & 3	Pin 7 - Cathode
Pin 4 - Cathode	Pin 8 - Heater

Mounting Position — Any

Direct Interelectrode Capacitances *

Grid to Plate	.0025	max	uuf
Input G1 to (F/K/G2&G3/G4)	9.5		uuf
Output P to (F/K/G2&G3/G4)	7.0		uuf

* With RMA tube shield M8-308 connected to cathode.

Ratings

Heater Voltage (ac or dc) (Nominal)	14.0	volts
Heater Current (Nominal)	0.240	ampere
Maximum Plate Voltage	300	volts
Maximum Screen Voltage	150	volts
Maximum Plate and Screen Dissipation (Total)	4.0	watts
Maximum Screen Dissipation	.8	watt

Typical Operating Conditions and Characteristics:

	Condition I **	Condition II **	
Heater Voltage	12.6	12.6	volts
Heater Current	0.225	0.225	ampere
Plate Voltage	300	300	volts
Screen Supply Voltage ***	150	300	volts
Screen Series Resistor	---	40,000	ohm
Suppressor Voltage	0	0	
Cathode Bias Resistor	160 min	160 min	ohms
Plate Resistance	.3	.3	megohm
Mutual Conductance	5800	5800	umhos
Plate Current	10.0	10.0	ma.
Screen Current	3.9	3.9	ma.
Grid Voltage for Cathode Current Cut-Off	-6	-14	volts

** Conditions I and II represent operation with fixed screen supply and with series screen resistor respectively. Condition II gives an extended cut-off characteristic and should be used when gain is controlled by varying the bias.

*** When a screen supply voltage in excess of 150 volts is used a series screen resistor must be used to limit the voltage at the screen to 150 volts when the plate current is at its rated value of 10.0 milliamperes.

Note:

The d-c resistance of the grid circuit should not exceed 0.25 megohm when operated with fixed screen voltage source (Condition I). When a series screen resistor is used and full cathode bias, the d-c resistance in the grid circuit may be as high as 0.5 megohm. (Condition II).

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