from RMA release #184, May 22, 1939

SYLVANIA #184

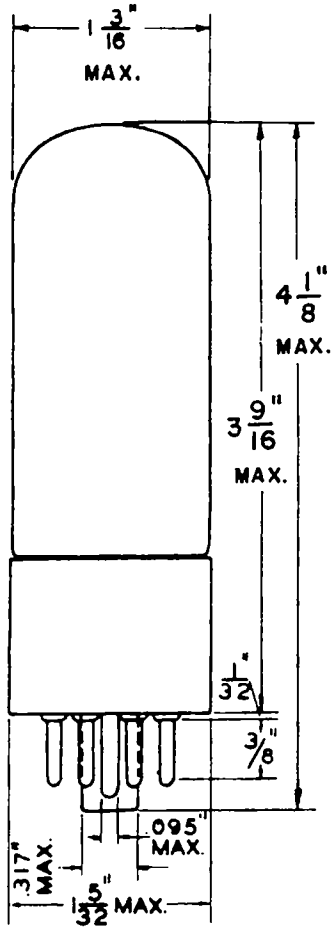
117Z6G

Hygrade Sylvania CORPORATION

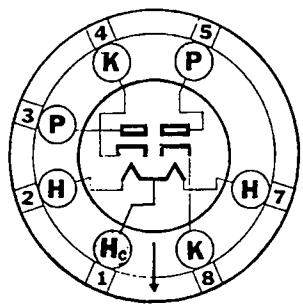
TECHNICAL DATA

SYLVANIA TYPE 117Z6G

Full-Wave Rectifier



TUBE AND BASE DIAGRAM
(BOTTOM VIEW)



TENTATIVE CHARACTERISTICS

Heater Voltage	58.5	117	Volts
Heater Current	0.150	0.075	Ampere
Maximum DC Heater to Cathode Voltage	350	350	Volts
Maximum Peak Inverse Voltage	700	700	Volts
Tube Voltage Drop at 120 Ma. per Plate	15.5	15.5	Volts

OPERATING CONDITIONS AND CHARACTERISTICS

Voltage Doubler

Heater Voltage	117	Volts
AC Voltage Per Plate (RMS)	117	Volts Max.
DC Output Current	60	Ma. Max.
Peak Plate Current	350	Ma. Max.
Plate Supply Impedance Per Plate (Min.)*		

Half-Wave Rectifier

Heater Voltage	117	117	117	Volts
AC Voltage Per Plate (RMS)	117	150	235	Max. Volts
DC Output Current Per Plate	60	60	60	Ma. Max.
Plate Supply Impedance Per Plate(Min.)*	0	40	100	Ohms Min.

* Sufficient impedance to limit maximum peak plate current to value shown.

Note: Ratings marked maximum are design centers for a line voltage of 117 volts.

CIRCUIT APPLICATION

Sylvania Type 117Z6G is a heater type, high vacuum full-wave rectifier designed for operation directly across a 117-volt line. The center tap of the heaters is brought out to pin No. 1 so that it is possible to operate the heaters in parallel on 58.5 volts. With this connection the heater current is 150 milliamperes.

Conventional rectifier circuits may be employed but care should be taken to insure that the maximum current and voltage ratings are not exceeded.

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HYGRADE SYLVANIA CORPORATION

RMA RELEASE #184A

TECHNICAL DATA
SYLVANIA TYPE 117Z6G
Full-Wave High-Vacuum Rectifier

Physical Specifications

Coated Unipotential Cathode	
Base	Small Octal 7-Pin
Bulb	T-9
Maximum Diameter	1 3/16"
Maximum Overall Length	4 1/8"
Maximum Seated Height	3 9/16"
Pin Connections	RMA Basing No. 7Q

Pin 1 - No Connection
Pin 2 - Heater
Pin 3 - Plate #2
Pin 4 - Cathode #2
Pin 5 - Plate #1
Pin 7 - Heater
Pin 8 - Cathode #1

Mounting Position

Any

Ratings

Heater Voltage	117	volts
Heater Current	0.075	amp
Maximum DC Heater to Cathode Potential	350	volts
Maximum Peak Inverse Voltage	700	volts
Maximum Steady-State Peak Plate Current	360	ma
Maximum AC Plate Voltage	235	volts
Tube Voltage Drop Measured with applied DC at 120 ma per plate	15.5	volts

Typical Operating Conditions

Voltage Doubler	Half-Wave	Full-Wave	
Heater Voltage	117	117	volts
AC Voltage per Plate (RMS)	117 Max	117 Max	volts
DC Output Current	60 Max	60 Max	ma
Minimum Total Effective Plate Supply Impedance per plate #	30	15	ohms

Half-Wave Rectifier

Heater Voltage	117	117	117	volts
AC Voltage per Plate (RMS)	117	150	235 Max	volts
DC Output Current	60 Max	60 Max	60 Max	ma
Minimum Total Effective Plate Supply Impedance per Plate #	15	40	100	ohms

When filter condensers larger than 40 mfds are used, it may be necessary to add additional plate supply impedance.

3-21-40