

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

35GL6

Refer to chart at end of section.

35L6GT**BEAM POWER TUBE**

Glass octal type used in output stage of ac/dc radio receivers. Outlines section, 13D; requires octal socket. This type may be supplied with pin No.1 omitted. Refer to miniature type 35C5 for installation, application information, and curves.

Heater Voltage (ac/dc)	35	volts
Heater Current	0.15	ampere
Peak Heater-Cathode Voltage	±90 max	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.6	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	13	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	9.5	pF

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Center Values)**

Plate Voltage	200	volts
Grid-No.2 (Screen-Grid) Voltage	125	volts
Plate Dissipation	8.5	watts
Grid-No.2 Input	1	watt

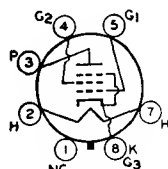
TYPICAL OPERATION

	Fixed Bias	Cathode Bias	
Plate Supply Voltage	110	200	volts
Grid-No.2 Supply Voltage	110	125	volts
Grid-No.1 (Control-Grid) Voltage	-7.5	—	volts
Cathode-Bias Resistor	—	180	ohms
Peak AF Grid-No.1 Voltage	7.5	8	volts
Zero-Signal Plate Current	40	43	mA
Maximum-Signal Plate Current	41	43	mA
Zero-Signal Grid-No.2 Current	3	2	mA
Maximum-Signal Grid-No.2 Current	7	5.5	mA
Plate Resistance	14000	34000	ohms
Transconductance	5800	6100	μmhos
Load Resistance	2500	5000	ohms
Total Harmonic Distortion	10	10	per cent
Maximum-Signal Power Output	1.5	3	watts

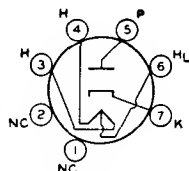
MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

**7AC****35W4****HALF-WAVE
VACUUM RECTIFIER**

Miniature type used in power supply of ac/dc receivers. Outlines section, 5D; requires miniature 7-contact socket. This type is equivalent in performance to glass-octal type 35Z5GT. The heater is provided with a tap for operation of a panel lamp.

**5BQ**

Heater Voltage (ac/dc):	*	**	
Entire Heater (pins 3 and 4)	35	32	volts
Panel Lamp Section (pins 4 and 6)	7.5	5.5	volts
Heater Current:			
Between Pins 3 and 4	0.15	—	ampere
Between Pins 3 and 6	—	0.15	ampere
Peak Heater-Cathode Voltage		±360 max	volts

* Without panel lamp.

** With No.40 or No.47 panel lamp.

Half-Wave Rectifier

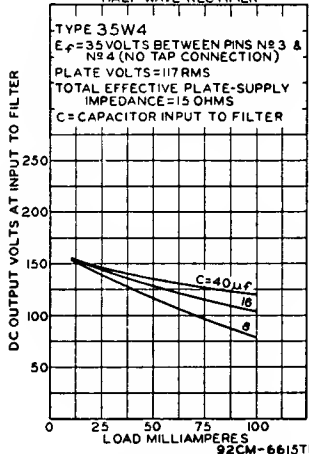
MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage	360	volts
Peak Plate Current	660	mA
Average Output Current:		
With Panel Lamp and { No Shunting Resistor	66	mA
Shunting Resistor	100	mA
Without Panel Lamp	110	mA
Panel-Lamp-Section Voltage:		
When Panel Lamp Fails	17	volts

Installation and Application

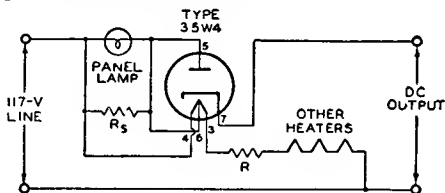
OPERATION CHARACTERISTICS

HALF-WAVE RECTIFIER



For heater considerations, refer to miniature type 35C5.

With the panel lamp connected as shown in the diagram, the drop across R and all heaters (with panel lamp) should equal 117 volts at 0.15 ampere. The shunting resistor R_s is required when dc output current exceeds 60 milliamperes. Values of R_s for dc output currents greater than 60 milliamperes are given in tabulated data.



AC Plate-Supply Voltage (rms)	117	117	117	117	volts
Filter-Input Capacitor	40	40	40	40	μF
Minimum Total Effective Plate-Supply Impedance	15	15	15	15	ohms
Panel-Lamp Shunting Resistor	—	300	150	100	ohms
Average Output Current	60	70	80	90	mA

† No. 40 or No. 47 panel lamp used in circuit given below with capacitor-input filter.

TYPICAL OPERATION WITHOUT PANEL LAMP

AC Plate-Supply Voltage (rms)	117	volts
Filter-Input Capacitor	40	μF
Minimum Total Effective Plate-Supply Impedance	15	ohms
Average Output Current	100	mA
DC Output Voltage at Input to Filter (Approx.):		
At half-load current (50 mA)	135	volts
At full-load current (100 mA)	120	volts
Voltage Regulation (Approx.):		
Half-load to full-load current	15	volts

MAXIMUM CIRCUIT VALUES

Panel-Lamp Shunting Resistor:*		
For dc output current of { 70 mA	800	ohms
80 mA	400	ohms
90 mA	250	ohms

* Required when dc output current is greater than 60 milliamperes.

Refer to chart at end of section.

35Y4

Refer to chart at end of section.

35Z3

Refer to chart at end of section.

35Z4GT