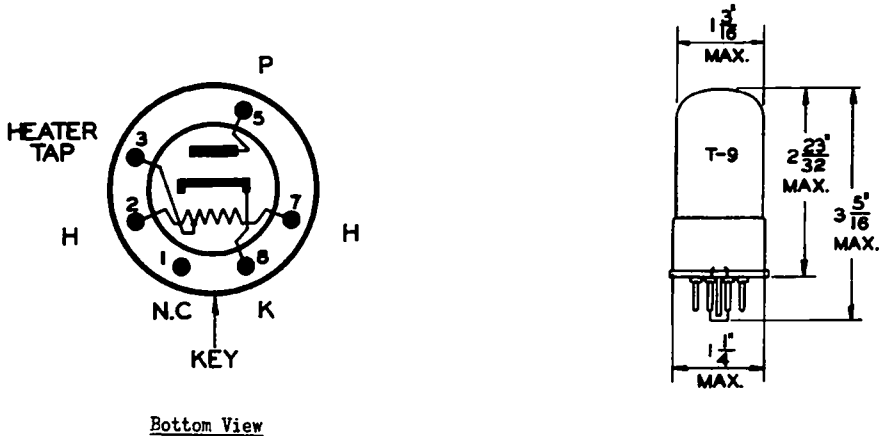




GENERAL DESCRIPTION

Application: The Ken-Rad 35Z5GT is a cathode type half-wave rectifier designed for service in AC-DC receivers. It features a 35 volt 150 milliamper heater having a tap brought out from the heater so that with proper external connections a single pilot lamp can be lighted to nominal brilliancy. It is recommended that the plate current of the rectifier be passed through the pilot lamp and the tapped section of the heater. This is accomplished by connecting the plate of the rectifier to the tap on the heater. The Ken-Rad 35Z5GT is a glass tube equipped with an octal base.

Physical Characteristics:



RATING AND CHARACTERISTICS

Heater:
 Voltage 35.0 Volts AC or DC
 Current .150 Ampere

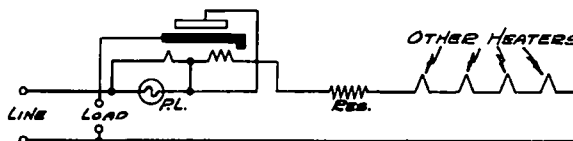
Note: With 35 volts RMS between pins 2 and 7, the open circuit voltage between pins 2 and 3 is 7.5 volts RMS.

* MAXIMUM CONDITIONS

AC Plate Voltage (RMS)	125	Volts	Max.
DC Load Current with No. 40 or No. 40A Pilot Lamp	50	Milliamperes	Max.
DC Load Current with No. 50 or No. 51 Pilot Lamp	60	Milliamperes	Max.
DC Load Current without Tap Connected	100	Milliamperes	Max.
<u>Average Tube Voltage Drop</u>	16	Volts at 200 Milliamperes	

* The ratings marked maximum are design centers for a line voltage of 117 volts.
 Note: No. 40 and No. 40A lamps are .15 Amp. at 6.3 Volts.
 No. 50 and No. 51 lamps are .20 Amp. at 7.5 Volts.

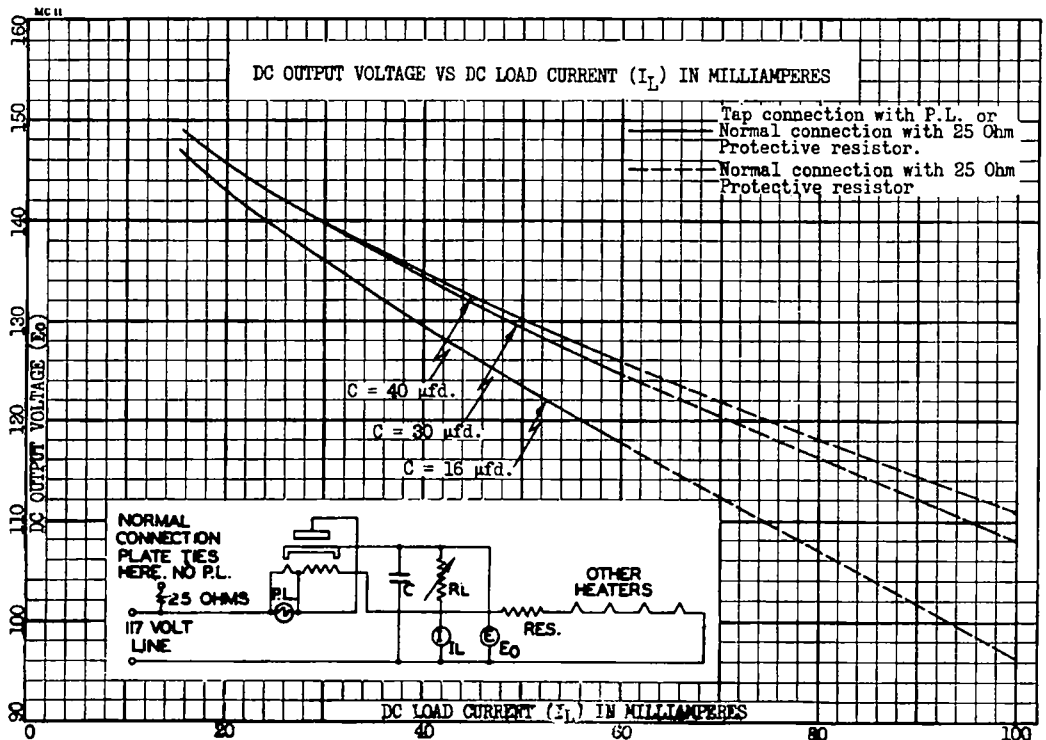
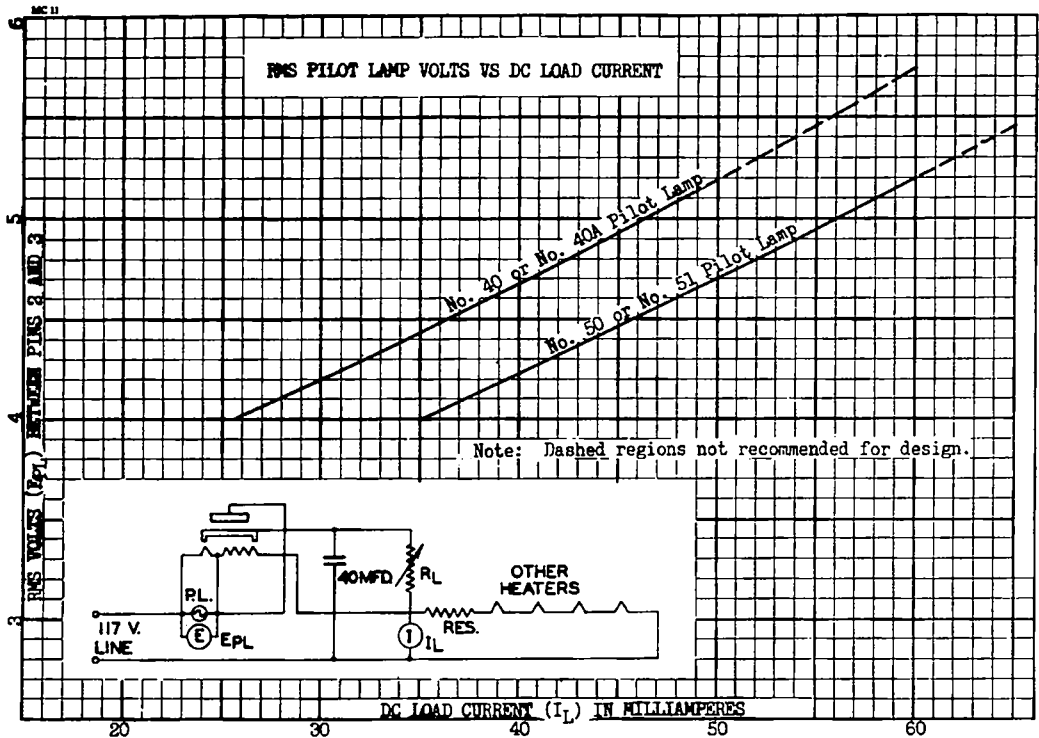
TYPICAL CONDITIONS-TAP CONNECTION



Note: Drop across resistance and all heaters should total 117 volts at .150 Amp.

RECOMMENDATIONS

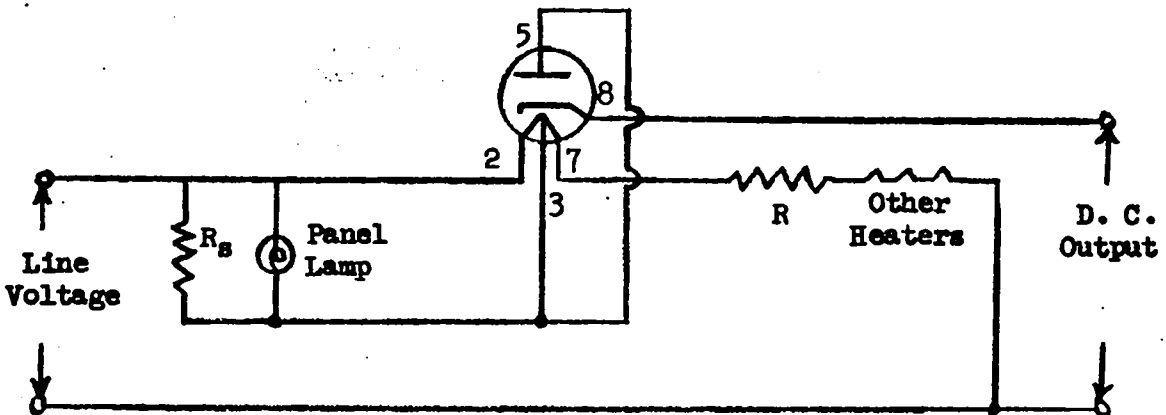
1. It is recommended that the pilot lamp and DC load current should be such that the potential between pins 2 and 3 does not exceed 5.2 volts RMS at 117 volts line. This voltage should be measured with a thermal meter or a meter that will read RMS voltages. Rectifier type voltmeters, although calibrated in RMS volts, measure average volts and should not be used for this measurement.
2. It is recommended that the input filter condenser be limited to 40 microfarads.
3. Although it is possible to use DC load currents above 60 milliamperes in combination with high current pilot lamps such as the No. 44 and No. 46, this operation is not recommended because with pilot lamp failure excessive voltage appears between pins 2 and 3 causing heater burn out.
4. If the 35Z5GT is used without the tap connection it is recommended that a 25 ohm protective resistor be used in series with the plate.
5. Voltages should not be applied to the socket when installing or removing tubes.



ELECTRICAL DATA (Continued)

Typical Operation with No. 40 or No. 47 Panel Lamp
 In Circuit Below with Capacitor Input to Filter

A.C. Plate supply voltage (RMS)	117	117	117	117	235	volts
Filter input capacitor	40	40	40	40	40	μ f
Minimum total effective plate supply impedance	15	15	15	15	100	ohms
Panel lamp shunting resistor	-	300	150	100	-	ohms
D.C. output current.	60	70	80	90	60	ma



Drop across R and all heaters (with panel lamp) should equal the line voltage at 0.15 ampere.
 R_s = shunting resistor required when DC output current exceeds 60 milliamperes.

Typical Operation Without Panel Lamp in Conventional Half-wave Circuit With
 Capacitor Input to Filter: (plate current must not flow through tap section)

A.C. plate supply voltage (RMS)	117	235	volts
Filter input capacitor.	40	40	μ f
Minimum total effective plate supply impedance	15	100	ohms
D.C. output voltage at input to filter (approx.):			
At 50 ma (half load)	140	280	volts
At 100 ma (full load)	120	235	volts
Difference (voltage regulation)	20	45	volts
Percentage regulation.	14	16	%
D.C. output current.	100	100	ma

Refer to "Interpretation of Receiving Tube Ratings"