35W4
HALF-WAVE VACUUM RECTIFIER

MINIATURE TYPE

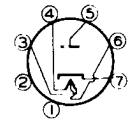
GENERAL DATA

Electrical:	*Without Panel Lamp*	*With No. 40 or No. 47 Panel Lamp*	
Heater, for Unipotential Cathode:			
Voltage (AC or DC):			
Entire Heater (pins 3 & 4)	35	32	volts
Panel-Lamp Section (pins 4 & 6)	7.5	5.5	volts
Current between pins 3 & 4	0.15	–	amp
Current between pins 3 & 6	–	0.15	amp

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length from Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Maximum Diameter	3/4"
Bulb	T-5-1/2
Base	Small-Button Miniature 7-Pin
Basing Designation for BOTTOM VIEW	5BQ

Pin 1 – No Connection
Pin 2 – No Connection
Pin 3 – Heater
Pin 4 – Heater
Pin 5 – Plate



Pin 6 – Heater Tap
Pin 7 – Cathode
Panel-Lamp Heater Section is between pins 4 & 6

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Maximum Ratings, *Design-Center Values*:

PEAK INVERSE PLATE VOLTAGE	330	max.	volts
PEAK PLATE CURRENT	600	max.	ma
DC OUTPUT CURRENT:			
With Panel Lamp & No Shunting Resistor	60	max.	ma
With Panel Lamp & Shunting Resistor	90	max.	ma
Without Panel Lamp	100	max.	ma
PANEL-LAMP-SECTION VOLTAGE (RMS):			
When panel lamp fails	15	max.	volts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	330	max.	volts
Heater positive with respect to cathode	330	max.	volts

Typical Operation with No.40 or No.47 Panel Lamp in Accompanying Half-Wave Circuit with Capacitor-Input Filter:

AC Plate-Supply Volt. (RMS)	117	117	117	117	volts
Filter-Input Capacitor	40	40	40	40	µf
Min. Total Effective Plate-Supply Impedance	15	15	15	15	ohms
Panel-Lamp Shunting Res.	–	300	150	100	ohms
DC Output Current	60	70	80	90	ma ←

← Indicates a change.

35W4

35W4

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Typical Operation Without Panel Lamp in Conventional Half-Wave Circuit with Capacitor-Input Filter:

AC Plate-Supply Voltage (RMS)	117	volts
Filter-Input Capacitor	40	μf
Min. Total Effective Plate-Supply Imped.	15	ohms
DC 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

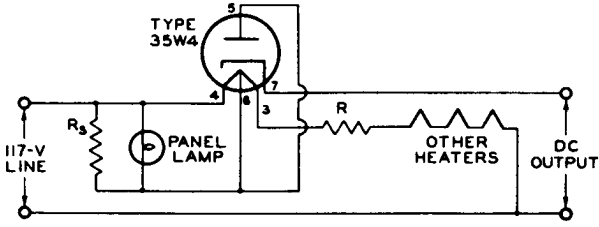
Maximum Circuit Values:

Panel-Lamp Shunting Resistor:*

For dc output current of 70 ma.	800 max.	ohms
For dc output current of 80 ma.	400 max.	ohms
For dc output current of 90 ma.	250 max.	ohms

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

HALF-WAVE CIRCUIT
with No.40 or No.47 Panel Lamp

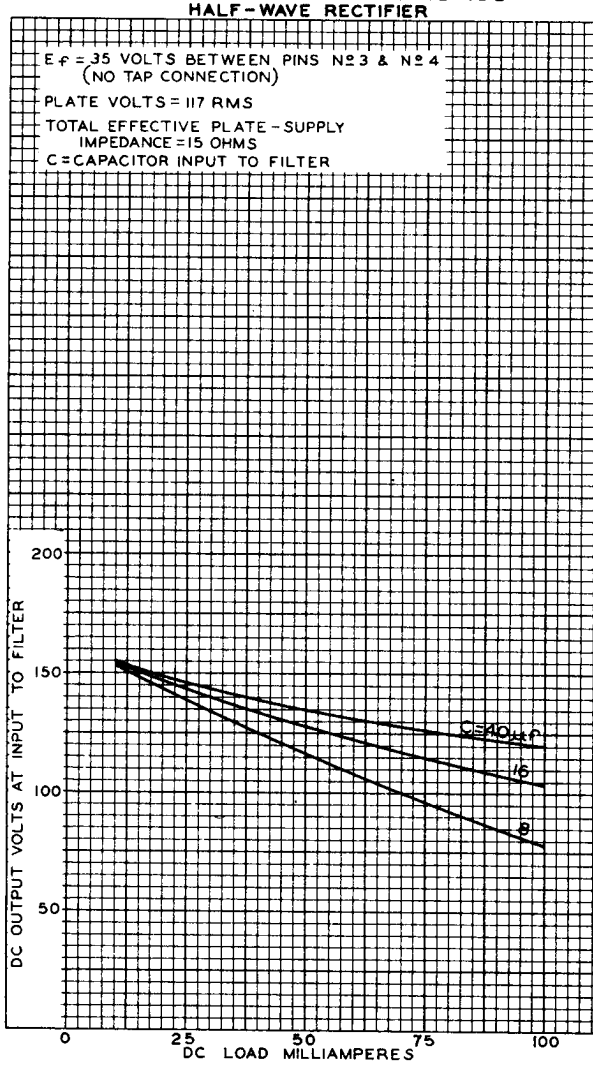


DROP ACROSS R AND ALL HEATERS (WITH PANEL LAMP) SHOULD EQUAL 117 VOLTS AT 0.15 AMPERE. R_s = SHUNTING RESISTOR REQUIRED WHEN DC OUTPUT CURRENT EXCEEDS 60 MILLIAMPERES

92CS-8626

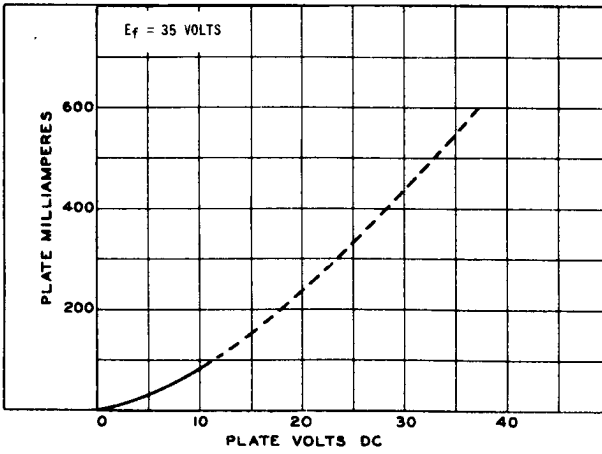
→ Indicates a change.

35W4
OPERATION CHARACTERISTICS
HALF-WAVE RECTIFIER



35W4

AVERAGE PLATE CHARACTERISTIC



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