



35Z5-GT

Description and Rating

HALF-WAVE HIGH-VACUUM RECTIFIER

GENERAL DESCRIPTION

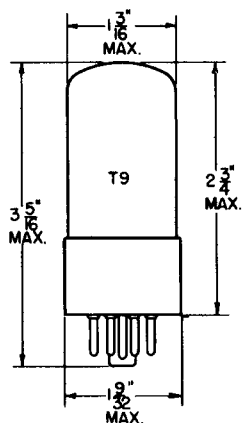
Principal Application: The 35Z5-GT is a half-wave high-vacuum rectifier designed for use in a-c/d-c receivers. The heater is tapped to permit operation of a panel lamp. It is recommended that the plate be

Cathode: Coated Unipotential
Heater Voltage (A-C or D-C) * 35.0 Volts
Heater Tap Voltage * 7.5 Volts
Heater Current * 0.15 Ampere

connected to the heater tap so that the plate current will pass through the panel lamp and the tapped section of the heater.

Envelope: T-9 Glass
Base: B6-8, Intermediate Shell Octal 6-Pin
Mounting Position: Any

PHYSICAL DIMENSIONS

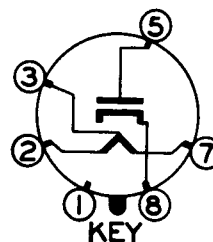


RMA 9-11

TERMINAL CONNECTIONS

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

BASING DIAGRAM



RMA 6AD
BOTTOM VIEW

MAXIMUM RATINGS

DESIGN CENTER VALUES:

Peak Inverse Plate Voltage	700	Volts
A-C Plate Supply Voltage (RMS)	235	Volts
Steady-State Peak Plate Current	600	Milliamperes
Steady-State D-C Output Current:		
Without Panel Lamp	100	Milliamperes
With Panel Lamp and Shunting Resistor	90	Milliamperes
With Panel Lamp and No Shunting Resistor	60	Milliamperes
Panel Lamp Shunting Resistor:		
For D-C Output Current of 70 Milliamperes	800	Ohms
For D-C Output Current of 80 Milliamperes	400	Ohms
For D-C Output Current of 90 Milliamperes	250	Ohms
Heater Tap Voltage (RMS) When Panel Lamp Fails	15	Volts
D-C Heater Cathode Voltage	350	Volts

* Values are for operation without panel lamp. For heater voltage and current ratings with panel lamp, refer to Characteristics and Typical Operation given on page 2. The heater tap voltage is measured between pins 2 and 3 with 0.15 ampere flowing between pins 2 and 7.

CHARACTERISTICS AND TYPICAL OPERATION

HALF-WAVE RECTIFIER - WITH PANEL LAMP NUMBER 40 OR NUMBER 47

Heater Voltage (Pin 2 to Pin 7):	32	32	32	32	32		Volts
Heater Tap Voltage (Pin 2 to Pin 3).	5.5	5.5	5.5	5.5	5.5		Volts
Heater Current (Between Pins 3 and 7).	0.15	0.15	0.15	0.15	0.15		Ampere
A-C Plate Supply Voltage (RMS)	117	117	117	117	235		Volts
Filter Input Capacitor	40	40	40	40	40		Microfarads
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		Milliamperes

HALF-WAVE RECTIFIER - WITHOUT PANEL LAMP

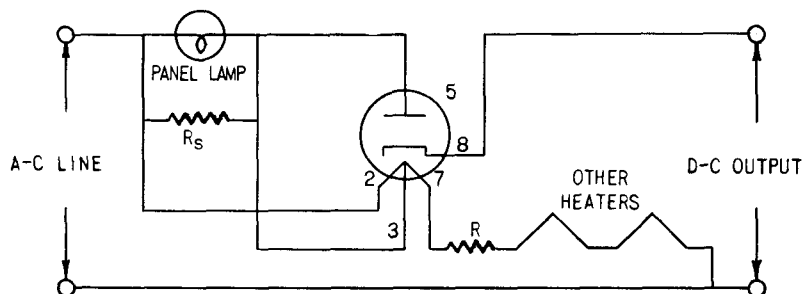
Heater Voltage (Pin 2 to Pin 7).	35		35			Volts
Heater Tap Voltage (Pin 2 to Pin 3)	7.5		7.5			Volts
Heater Current (Between Pins 3 and 7)	0.15		0.15			Ampere
A-C Plate Supply Voltage (RMS)	117		235			Volts
Filter Input Capacitor	40		40			Microfarads
Minimum Total Effective Plate Supply Impedance	15		100			Ohms
D-C Output Current	100		100			Milliamperes
D-C Output Voltage at Input to Filter: (Approx)						
At 50 Milliamperes Load Current	140		280			Volts
At 100 Milliamperes Load Current	120		235			Volts

Tube Voltage Drop:

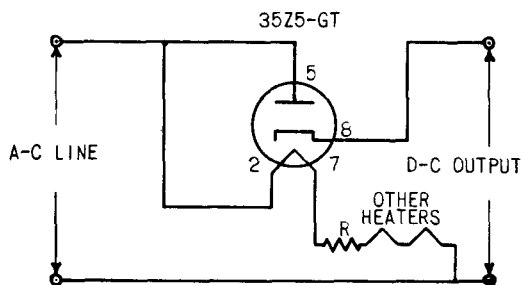
Measured with Applied D-C at 200 Milliamperes 18 Volts

Shunting resistor required if d-c output current is greater than 60 milliamperes.

TYPICAL CIRCUIT FOR OPERATION WITH PANEL LAMP



TYPICAL CIRCUIT FOR OPERATION WITHOUT PANEL LAMP

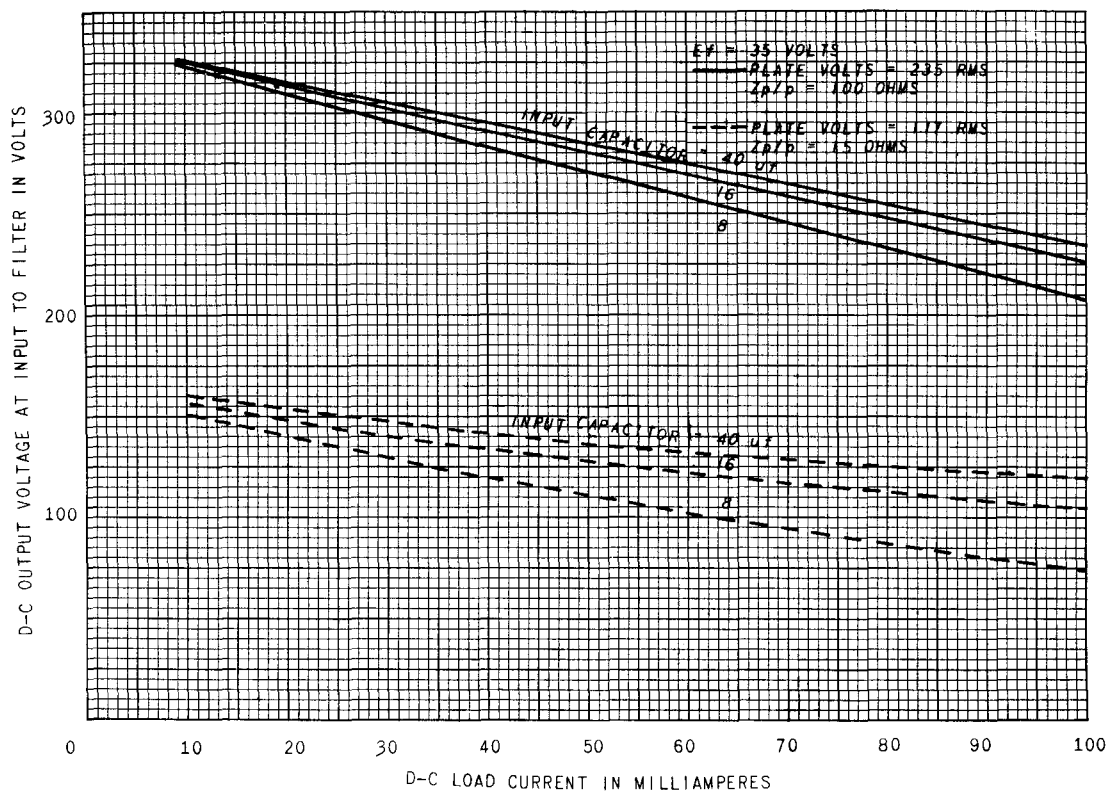


R_s = Panel-lamp shunting resistor

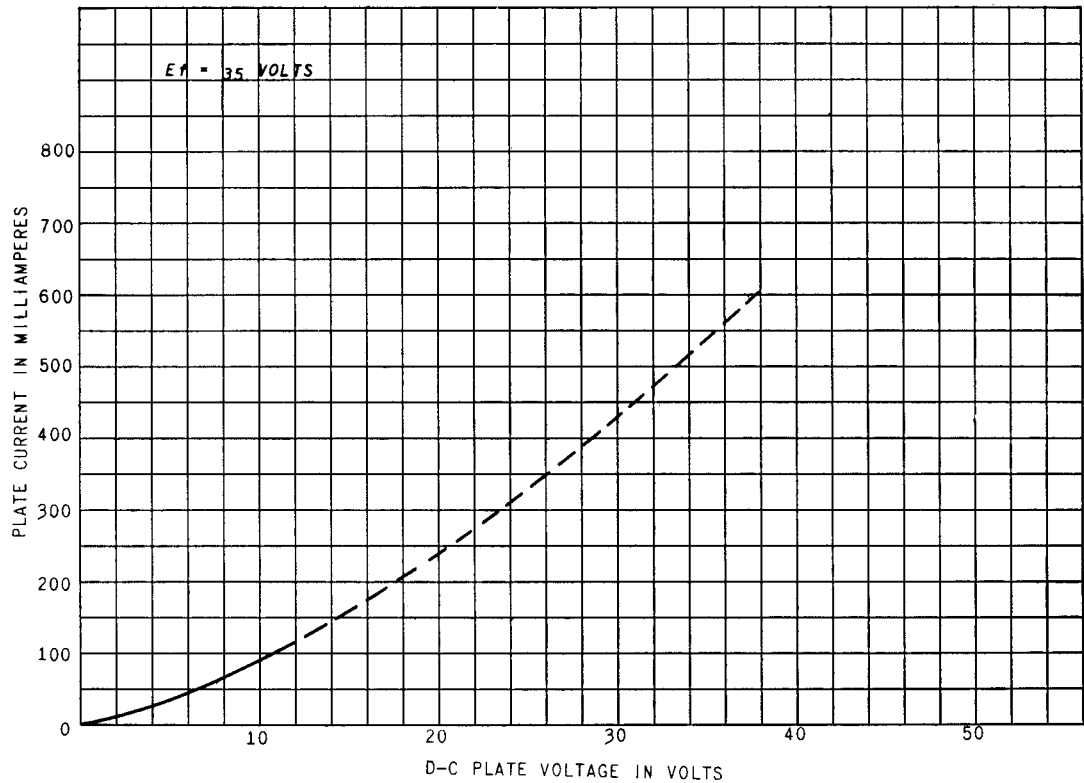
Drop across R at 0.15 ampere should equal difference between line voltage and total of all rated heater voltages.

OPERATION CHARACTERISTICS

HALF-WAVE RECTIFIER CAPACITOR INPUT TO FILTER



AVERAGE PLATE CHARACTERISTICS



Tube Divisions, Electronics Department



Schenectady, N. Y.