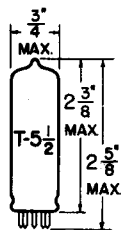


TUNG-SOL

PENTODE

MINIATURE TYPE



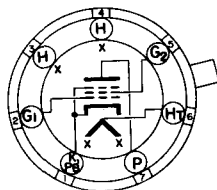
GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER

 $35 \pm 10\%$ VOLTS 0.15 AMP.AC OR DC^A

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON

7 PIN BASE

T F Z

THE 35GL6 IS A BEAM PENTODE IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED PRIMARILY FOR USE IN THE AUDIO-FREQUENCY POWER OUTPUT STAGE OF RADIO RECEIVERS. THE 35GL6 IS TAPPED TO PERMIT OPERATION OF A PANEL LAMP.

DIRECT INTERELECTRODE CAPACITANCES -APPROX.

WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE	0.5	$\mu\mu\text{f}$
INPUT	14	$\mu\mu\text{f}$
OUTPUT	9.5	$\mu\mu\text{f}$

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

HEATER VOLTAGE	$35 \pm 10\%$	VOLTS
HEATER-TAP VOLTAGE WHEN PANEL LAMP FAILS, RMS	14	VOLTS
MAXIMUM PLATE VOLTAGE	150	VOLTS
MAXIMUM SCREEN VOLTAGE	130	VOLTS
MAXIMUM PLATE DISSIPATION	5.5	WATTS
MAXIMUM SCREEN DISSIPATION	1.1	WATTS
MAXIMUM HEATER CATHODE VOLTAGE:		
HEATER POSITIVE WITH RESPECT TO CATHODE	200	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE:		
WITH FIXED BIAS	0.1	MEGOHM
WITH CATHODE BIAS	0.5	MEGOHMS
BULB TEMPERATURE AT HOTTEST POINT	225	$^{\circ}\text{C}$

DESIGN-MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO BOGIE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR. TO OBTAIN SATISFACTORY CIRCUIT PERFORMANCE, THEREFORE, THE EQUIPMENT DESIGNER MUST ESTABLISH THE CIRCUIT DESIGN SO THAT NO DESIGN-MAXIMUM VALUE IS EXCEEDED WITH A BOGIE TUBE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

^A OPERATION WITHOUT PANEL LAMP.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

HEATER VOLTAGE ^A	35±10%	VOLTS
HEATER-TAP VOLTAGE ^A	7.0	VOLTS
HEATER CURRENT ^A	0.15	AMP.
PLATE VOLTAGE	110	VOLTS
SCREEN VOLTAGE	110	VOLTS
GRID #1 VOLTAGE	-7.5	VOLTS
PEAK AF GRID #1 VOLTAGE	7.5	VOLTS
PLATE RESISTANCE, APPROX.	12 000	OHMS
TRANSCONDUCTANCE	7 500	μMHMS
ZERO-SIGNAL PLATE CURRENT	45	MA.
MAXIMUM-SIGNAL PLATE CURRENT	47	MA.
ZERO-SIGNAL SCREEN CURRENT	3.0	MA.
MAXIMUM-SIGNAL SCREEN CURRENT	9.0	MA.
LOAD RESISTANCE	2 500	OHMS
TOTAL HARMONIC DISTORTION, APPROX.	8	PERCENT
MAXIMUM-SIGNAL POWER OUTPUT	1.8	WATTS

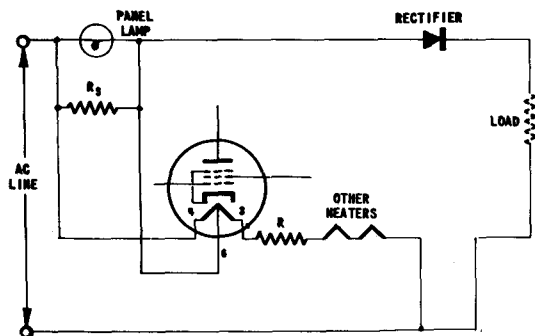
THE 35GL6 HAS A HEATER TAP, WHICH MAY BE USED FOR OPERATING A 6.3 VOLT, 150 MILLIAMPERE PANEL LAMP IN EQUIPMENT EMPLOYING SEMICONDUCTOR RECTIFIERS. THE TABLE BELOW GIVES THE REQUIRED VALUES OF PANEL-LAMP SHUNTING RESISTOR FOR VARIOUS RECTIFIER LOAD CURRENTS.

SHUNTING RESISTOR REQUIRED WITH PANEL LAMP #40 OR #47

(SEE TYPICAL CIRCUIT)

HEATER VOLTAGE (PIN 3 TO PIN 4)	32	32	32	32	32	32	32	VOLTS
HEATER-TAP VOLTAGE (PIN 4 TO PIN 6)	5.0	5.4	5.5	5.5	5.5	5.5	5.5	VOLTS
HEATER CURRENT (BETWEEN PINS 3 & 6)	150	150	150	150	150	150	150	MA.
PANEL-LAMP SHUNTING RESISTOR	—	—	370	175	120	88	73	OHMS
RECTIFIER LOAD CURRENT ^B	60	70	80	90	100	110	120	MA.

^BHIGHER LOAD CURRENTS WILL REQUIRE SMALLER VALUES OF PANEL-LAMP SHUNTING RESISTOR. FOR MAXIMUM PANEL-LAMP LIFE, THE SHUNTING RESISTOR SHOULD BE SELECTED TO ALLOW A PANEL-LAMP VOLTAGE OF 5.5 VOLTS WITH FULL RECTIFIER LOAD CURRENT.

TYPICAL CIRCUIT FOR OPERATION
WITH PANEL LAMP

R₂ = PANEL-LAMP SHUNTING RESISTOR.

DROP ACROSS R AT 0.15 AMPERE SHOULD EQUAL DIFFERENCE BETWEEN LINE VOLTAGE AND TOTAL OF ALL RATED HEATER VOLTAGES.

