RADIO VALVE CO. OF CANADA LTD.
TORONTO, CANADA

Electronic Tube 5871 - Technical Information

The 5871 is a glass P.O. pentode similar to the 6V6GT. It is designed for dependable operation under conditions of extended periods of vibration usually found in aircraft and similar applications. It will also maintain its emission capabilities after periods of operation at or near cutoff conditions.

TECHNICAL INFORMATION

GENERAL

Mechanical Data

Envelope - T-9  
Base - Intermediate Shell Octal 7-Pin  
Maximum Overall Length - 3-5/16"  
Maximum Seated Height - 2-3/4"  
Maximum Diameter - 1-5/16"  
Mounting Position - Any

Direct Interelectrode Capacitances (Approx.)  
Grid to Plate 0.7 uufd  
Input 9.5 uufd  
Output 7.5 uufd

Electrical Data

Cathode - Coated Unipotential

Heater Voltage (AC or DC) 6.3 volts  
Heater Current 0.45 amp.

** RATINGS  
SINGLE-TUBE AMPLIFIER

Maximum Plate Voltage 315 volts  
Maximum Screen Voltage 225 volts  
Maximum Plate Dissipation 12 watts  
Maximum Screen Dissipation 2 watts

TYPICAL OPERATION AND CHARACTERISTICS: Class A1 Amplifier

Plate Voltage 180 250 315 volts  
Screen Voltage 180 250 225 volts  
Grid Voltage * -8.5 -12.5 -13 volts  
Peak A-F Grid Volt. 8.5 12.5 13 volts  
Zero-Sig. Plate Cur. 29 45 34 ma.  
Max.-Sig. Plate Cur. 30 47 35 ma.  
Zero-Sig. Screen Cur. 3 4.5 2.2 approx. ma.  
Max.-Sig. Screen Cur. 4 7 6 approx. ma.

Plate Resistance 58000 52000 77000 ohms  
Transconductance 3700 4100 3750 ohms  
Load Resistance 5500 5000 8500 ohms  
Tot. Harmonic Dist. 8 8 12 %  
Max.-Sig. Power Output 2 4.5 5.5 watts

April 11/50
Maximum Vibration Output 250 RMS Millivolts measured across a load resistor of 2000 ohms when tube is vibrated with a total Sinusoidal motion of 0.08 inches at 25 cycles per second.

Conditions of test:

- Heater voltage 6.3 volts
- Plate and Screen voltage 250 volts
- Grid Voltage -25 volts

PUSH-PULL AMPLIFIER

- Plate Voltage (Maximum) 315 volts
- Maximum Screen Voltage 285 volts
- Maximum Plate Dissipation 12 watts
- Maximum Screen Dissipation 2 watts

TYPICAL OPERATION AND CHARACTERISTICS: Class AB, Amplifier
(Unless otherwise specified, values are for 2 tubes)

- Plate Voltage 250, 285 volts
- Screen Voltage 250, 285 volts
- Grid Voltage* -15, -19 volts
- Peak A-F Grid-to-Grid Volt. 30, 38 volts
- Zero-Sig. Plate Cur. 70, 70 ma
- Max.-Sig. Plate Cur. 79, 92 ma
- Zero-Sig. Screen Cur. 5, 4 approx. ma
- Max.-Sig. Screen Cur. 13, 13.5 approx. ma
- Plate Resistance 60000, 65000 approx. ohms
- Transconductance 3750, 3600 umhos
- Effic. Load Res. 10000, 8000 ohms
- Total Harmonic Dist. 5, 3.5 %
- Max.-Sig. Power Output 10, 14 watts

oo With no external shield

* The type of input coupling used should not introduce too much resistance in the grid circuit. Transformer or impedance-coupling devices are recommended. When the grid circuit has a resistance not higher than 0.1 megohm, fixed bias may be used; for higher values, cathode bias is required. With cathode bias, the grid circuit may have a resistance not to exceed 0.5 megohm.

** Maximum Ratings are Design-Center Values

TERMINAL CONNECTIONS

- Pin 1 - No connection
- Pin 2 - Heater
- Pin 3 - Plate
- Pin 4 - Screen
- Pin 5 - Grid
- Pin 7 - Heater
- Pin 8 - Cathode

May 10, 1954

BASING DIAGRAM

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