

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.) <sup>oo</sup>

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	285	volts
Maximum Plate Dissipation	12	watts
Maximum Screen Dissipation	2	watts

TYPICAL OPERATION AND CHARACTERISTICS: Class A<sub>1</sub> 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	<u>approx. ma.</u>
Max.-Sig. Screen Cur.	4	7	6	<u>approx. ma.</u>
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

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-FULL 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<sub>1</sub> Amplifier  
 (Unless otherwise specified, values are for 2<sup>1</sup> 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	<u>approx. ma.</u>
Max.-Sig. Screen Cur.	13	13.5	<u>approx. ma.</u>
Plate Resistance	60000	65000	<u>approx. ohms</u>
Transconductance	3750	3600	umhos
Effec. Load Res.	10000	8000	ohms
Total Harmonic Dist.	5	3.5	%
Max.-Sig. Power Output	10	14	watts

oo With no external shield

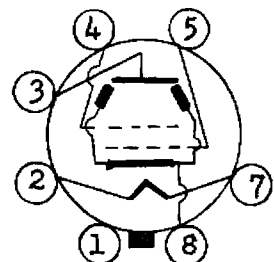
\* The type of input coupling used should not introduce too much resistance in the grid circuit. Transformer or impedance-coupling devices are recommended. When the grid circuit has a resistance not higher than 0.1 megohm, fixed bias may be used; for higher values, cathode bias is required. With cathode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

BASING DIAGRAM



May 10, 1954

7AC