

TYPE 5933
RATINGS -- Absolute System (Continuous Commercial Service)

Maximum Frequency for Which Ratings Apply ⁽⁴⁾	60	megacycles
Maximum Heater-Cathode Voltage	±135	volts

Audio-Frequency Power Amplifier and Modulator, Class AB₂

Maximum Plate Voltage (dc)	600	volts
Maximum Grid #2 Voltage (dc)	300	volts
Maximum Plate Current ⁽⁵⁾ , max.-signal conditions (dc) ..	120	milliamps
Maximum Plate Power Input ⁽⁵⁾ , max.-signal conditions ...	60	watts
Maximum Grid #2 Power Input ⁽⁵⁾ , max.-signal conditions..	3.5	watts
Maximum Plate Dissipation	25	watts

Radio-Frequency Power Amplifier, Class-B Telephony

(Carrier conditions per tube for use with a
maximum modulation factor of 1.0)

Maximum Plate Voltage (dc)	600	volts
Maximum Grid #2 Voltage (dc)	300	volts
Maximum Plate Current (dc)	80	milliamps
Maximum Plate Power Input	37.5	watts
Maximum Grid #2 Power Input	2.5	watts
Maximum Plate Dissipation	25	watts

Plate-Modulated Radio-Frequency Power Amplifier, Class-C Telephony

(Carrier conditions per tube for use
with a maximum modulation factor of 1.0)

Maximum Plate Voltage (dc)	475	volts
Maximum Grid #2 Voltage (dc)	300	volts
Maximum Grid #1 Voltage (dc)	-200	volts
Maximum Plate Current (dc)	83	milliamps
Maximum Grid #1 Current (dc)	5	milliamps
Maximum Plate Power Input	40	watts
Maximum Grid #2 Power Input	2.5	watts
Maximum Plate Dissipation	16.5	watts

Radio-Frequency Power Amplifier and Oscillator, Class-C Telegraphy

(Key-down conditions per tube
without amplitude modulation)⁽⁶⁾

Maximum Plate Voltage (dc)	600	volts
Maximum Grid #2 Voltage (dc)	300	volts
Maximum Grid #1 Voltage (dc)	-200	volts
Maximum Plate Current (dc)	100	milliamps
Maximum Grid #1 Current (dc)	5	milliamps
Maximum Plate Power Input	60	watts
Maximum Grid #2 Power Input	3.5	watts
Plate Dissipation	25	watts

(See Page 3 for all notes.)

TYPICAL OPERATION

Radio-Frequency Power Amplifier, Class-C Telegraphy

Heater voltage (ac or dc)	6.3	volts
Plate Voltage (dc)	600	volts
Grid #2 Voltage (dc)	200	volts
Grid #1 Resistor	10,000	ohms
Grid #1 Current (dc)	5 to 7	milliamps
Plate Current, maximum (dc)	100	milliamps
Frequency	15	megacycles
Power Output (approx.)	40	watts

- (1) Forces in any direction as applied by the Navy Type, High Impact Shock Machine for Electronic Devices, or its equivalent.
- (2) Vibrational forces in any direction at 25 cycles per second for a period not exceeding 96 hours.
- (3) External shield #312 connected to Pin 4.
- (4) The tube may be operated at higher frequencies provided the maximum values of plate voltage and power input are reduced according to the data tabulated below. Special attention should be given to ventilation of the bulb at these higher frequencies.

Frequency	60	80	175	megacycles
Maximum permissible percentage of rated maximum plate voltage and plate input:				
Class B	100	90	75	per cent
Class C, plate modulated or unmodulated	100	80	55	per cent
- (5) Averaged over any audio-frequency cycle of sine-wave form.
- (6) Negative modulation may be used. Under such conditions the positive peak of the envelope must not exceed 115 percent of the carrier conditions.

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