6897

Power Triode

FORCED-AIR COOLED

For Cathode-Drive Applications at Frequencies up to 2500 Mc ←

GENERAL DATA

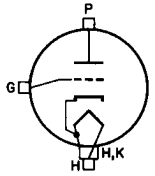
Electrical: ←

Heater, for Unipotential Cathode:		
Voltage (AC or DC)[a]	6.3 ± 5%	volts
Current at heater volts = 6.3	1.03	amp
Amplification Factor	95	
Transconductance, for dc plate volts = 600 and dc plate ma. = 75.	24800	μmhos
Direct Interelectrode Capacitances (Approx.):[b]		
Grid to plate	2	μμf
Grid to cathode	6.5	μμf
Plate to cathode	0.024	μμf

Mechanical:

Operating Position	Any
Maximum Overall Length	2-3/4"
Diameter	1-1/4" ± 1/64"
Mounting	Only plate flange to be used as socket stop and clamping surface
Weight (Approx.)	2 oz
Radiator	Integral part of tube

Terminal Diagram (See *Dimensional Outline*):



P – Plate

G – Grid

K – Cathode

H – Heater

Thermal:

Air Flow:

Through radiator—Adequate air flow should be delivered by a blower during the application of any voltages.

To plate, grid, cathode, and heater seals—A sufficient quantity of air should be delivered to these seals to prevent their temperature from exceeding the specified maximum value.

Seal Temperature (Plate, grid, cathode, and heater)	250 max.	°C
Recommended Air-Flow Cowling	157-JAN	
Recommended Air Flow on Plate Radiator at sea level with incoming-air temperature (°C) = 25, plate dissipation (watts) = 100	12.5	cfm

← Indicates a change.

PLATE-MODULATED RF POWER AMPLIFIER — Class C Telephony

Carrier conditions per tube for use with a maximum modulation factor of 1

Maximum CCS[c] Ratings, *Absolute-Maximum Values:*

For frequencies up to 2500 Mc

DC PLATE VOLTAGE	600[d]	max.	volts
GRID VOLTAGE:			
Negative-bias value	150	max.	volts
Peak-negative-rf value	400	max.	volts
Peak-positive-rf value	30	max.	volts
DC GRID CURRENT	50	max.	ma
DC CATHODE CURRENT	100	max.	ma
GRID INPUT	2	max.	watts
PLATE DISSIPATION	70	max.	watts

RF POWER AMPLIFIER & OSCILLATOR — Class C Telegraphy[e]

Maximum CCS[c] Ratings, *Absolute-Maximum Values:*

For frequencies up to 2500 Mc

DC PLATE VOLTAGE	1000	max.	volts
GRID VOLTAGE:			
Negative-bias value	150	max.	volts
Peak-negative-rf value	400	max.	volts
Peak-positive-rf value	30	max.	volts
DC GRID CURRENT	50	max.	ma
DC CATHODE CURRENT	125	max.	ma
GRID INPUT	2	max.	watts
PLATE DISSIPATION	100	max.	watts

[a] Because the cathode is subjected to considerable back bombardment as the frequency is increased with resultant increase in temperature, the heater voltage should be reduced depending on operating conditions and frequency to prevent overheating the cathode and resultant short life.

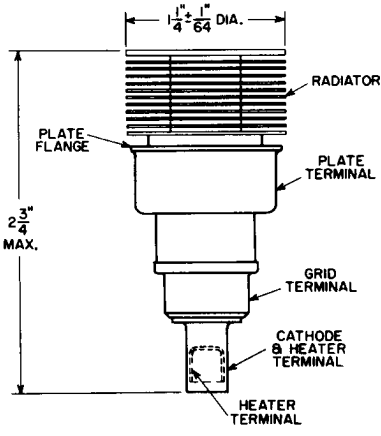
→ [b] With special shielded socket.

[c] Continuous Commercial Service.

[d] For modulation factors less than 1, a higher dc plate voltage may be used provided the sum of the peak-positive audio voltage and the dc plate voltage does not exceed 1200 volts.

[e] Key-down conditions per tube without amplitude modulation. Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

→ Indicates a change.


1 1/4" + 1/64" DIA.
RADIATOR
PLATE FLANGE
PLATE TERMINAL
2 3/4" MAX.
GRID TERMINAL
CATHODE & HEATER TERMINAL
HEATER TERMINAL
92CS-11372