

Typical Operation with Rectangular Wave Shape in Cathode-Drive Oscillator Circuit at 1250 Mc.

With duty factor[■] of 0.01

Peak Positive-Pulse Plate-Supply Voltage [†]	5500	7500	volts
Peak Negative-Pulse Grid Voltage	375	500	volts
From cathode resistor of ^Δ	100	100	ohms
Peak RF Grid Voltage	625	850	volts
Peak Plate Current from Pulse Supply	3.5	4.5	amperes
Peak Rectified Grid Current	0.25	0.50	amperes
DC Plate Current	35	45	ma
DC Grid Current	2.5	5	ma
Useful Power Output at Peak of Pulse [‡] (Approx.)	8000	14000	watts

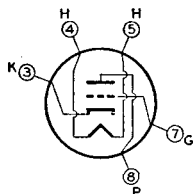
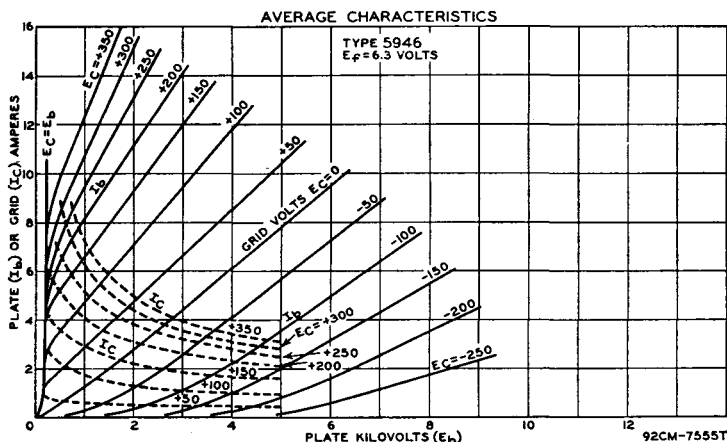
* "On" time for this tube is defined as the sum of the durations of all the individual pulses which occur during any 1000-microsecond interval. Pulse duration is defined as the time interval between the two points on the pulse at which the instantaneous value is 70 per cent of the peak value. The peak value is defined as the maximum value of a smooth curve through the average of the fluctuations over the top portion of the pulse.

† The magnitude of any spike on the plate-voltage pulse should not exceed a value of 8.5 kilovolts with respect to cathode, and its duration should not exceed 0.5 microsecond measured at the peak-pulse-value level.

■ Duty factor is the product of pulse duration and repetition rate. For variable pulse durations and pulse repetition rates, the duty factor for this tube is defined as the ratio of "on" to total elapsed time in any 500-microsecond interval.

Δ Obtained preferably from cathode resistor of value shown. In certain applications, partial grid-resistor bias may be used.

‡ Determined from the average power output using the duty factor of the peak power output pulse. This procedure is necessary because the power-output-pulse duty factor may be less than the applied-voltage-pulse duty factor because of a delay in the start of rf power output.



OSCILLATOR TRIODE

Subminiature heater-cathode type used in radiosonde service at 400 Mc. Class C Telegraphy maximum CCS plate dissipation, 3 watts. May be mounted in any position. **OUTLINE**

6026

4, *Outlines* Section. The flexible leads of the 6026 are usually soldered to the circuit elements. Soldering of the leads may be made close to the glass-button base provided care is taken to conduct excessive heat away from the lead seal. Otherwise, the heat of the soldering operation will crack the seals of the leads and damage the tube. Plate shows no color when tube is operated at maximum CCS ratings.

HEATER VOLTAGE RANGE (AC/DC)°	5.2 to 6.6	volts
HEATER CURRENT (At 6.3 volts)	0.2	ampere
TRANSCONDUCTANCE*	5900	μmhos

RCA Transmitting Tubes

AMPLIFICATION FACTOR*	24	
PLATE RESISTANCE (Approx.)*	4000	ohms
DIRECT INTERELECTRODE CAPACITANCES:		
Grid to plate	1.3	μf
Grid to cathode and heater	2.0	μf
Plate to cathode and heater	0.42	μf

* For radiosonde applications in which the heater is supplied from batteries and the equipment-design requirements of minimum size, light weight, and high efficiency are the primary considerations even though the average life expectancy of the 6026 in such service is only a few hours.

* Plate-supply volts, 120; cathode resistor, 220 ohms, plate milliamperes 12.

OSCILLATOR—Class C Telegraphy

Maximum CCS Ratings:

DC PLATE VOLTAGE	150 max	volts
DC GRID VOLTAGE	-50 max	volts
TOTAL CATHODE CURRENT	40 max	ma
DC GRID CURRENT	10 max	ma
PLATE INPUT	3.3 max	watts
PLATE DISSIPATION	3.0 max	watts
PEAK HEATER-CATHODE VOLTAGE	0 max	volts

Typical Operation as an Oscillator at 400 Mc:

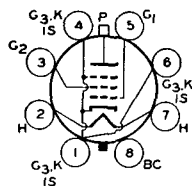
DC Plate Voltage	135	volts
Grid Resistor	1300	ohms
DC Plate Current	20	ma
DC Grid Current (Approx.)	9.5	ma
Useful Power Output	1.25	watts

BEAM POWER TUBE

6146

Small, sturdy, glass-octal heater-cathode type used as af power amplifier and modulator and as rf power amplifier and oscillator. May be used with full input up to 60 Mc and with

reduced input up to 175 Mc. Class C Telegraphy maximum plate dissipation, CCS 20 watts, ICAS 25 watts.



HEATER VOLTAGE (AC/DC)	6.3 $\pm$ 10%	volts
HEATER CURRENT	1.25	amperes
TRANSCONDUCTANCE*	7000	μmhos
MU-FACTOR, Grid No.2 to Grid No.1*	4.5	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid No.1 to plate	0.24 max	μf
Grid No.1 to cathode, grid No.3, grid No.2, internal shield, base sleeve, and heater	13.5	μf
Plate to cathode, grid No.3, grid No.2, internal shield, base sleeve, and heater	8.5	μf

* Plate and grid-No.2 volts, 200; plate milliamperes, 100.

AF POWER AMPLIFIER AND MODULATOR—CLASS AB₂

Maximum Ratings:	CCS		ICAS		
DC PLATE VOLTAGE	600 max		750 max		volts
DC GRID-NO.2 (SCREEN-GRID) VOLTAGE	250 max		250 max		volts
MAXIMUM-SIGNAL DC PLATE CURRENT [■]	125 max		135 max		ma
MAXIMUM-SIGNAL PLATE INPUT [■]	62.5 max		90 max		watts
MAXIMUM-SIGNAL GRID-NO.2 INPUT [■]	3 max		3 max		watts
PLATE DISSIPATION [■]	20 max		25 max		watts
PEAK HEATER-CATHODE VOLTAGE:					
Heater negative with respect to cathode	135 max		135 max		volts
Heater positive with respect to cathode	135 max		135 max		volts
BULB TEMPERATURE (At hottest point)	220 max		220 max		°C

Typical Operation (Values are for 2 tubes):

DC Plate Voltage	400	500	600	600	750	volts
DC Grid-No.2 Voltage*	175	175	165	190	165	volts
DC Grid-No.1 (Control-Grid) Voltage	-41	-44	-44	-48	-46	volts
Peak AF Grid-No.1-to-Grid-No.1 Voltage	95	102	97	109	108	volts