



6026

# OSCILLATOR TRIODE

SUBMINIATURE TYPE

For radiosonde service at 400 Mc

6026

## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathode:

Voltage range*	5.2 to 6.6	ac or dc volts
Current at 6.3 volts.	0.2	amp

Direct Interelectrode Capacitances (Approx.):<sup>o</sup>

Grid to plate	1.3	μf	←
Grid to cathode and heater	2	μf	←
Plate to cathode and heater	0.42	μf	←

### Characteristics, Class A<sub>1</sub> Amplifier:

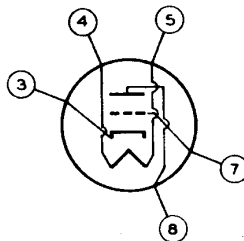
Plate-Supply Voltage	120	volts
Cathode Resistor	220	ohms
Amplification Factor	24	
Plate Resistance (Approx.)	4000	ohms
Transconductance	5900	μmhos
Plate Current	12	ma

### Mechanical:

Mounting Position	Any
Maximum Length (Excluding flexible leads)	1-1/2"
Length, Bulb Seat to Bulb Top (Excluding tip)	1.200" ± 0.060"
Maximum Diameter	0.400"
Dimensional Outline	See General Section
Bulb	T-3
Leads, Flexible	5
Length	1-1/2" to 1-3/4"
Orientation and diameter	See Dimensional Outline

BOTTOM VIEW

Lead 3 - Cathode  
 Lead 4 - Heater  
 Lead 5 - Heater



Lead 7 - Grid  
 Lead 8 - Plate

## OSCILLATOR - Class C Telegraphy

### Maximum Ratings\*, Absolute Values:

DC PLATE VOLTAGE	150 max.	volts
DC GRID VOLTAGE	-50 max.	volts
TOTAL CATHODE CURRENT	40 max.	ma

\* Heater-voltage range and maximum ratings are established on basis that tube heater will be supplied from batteries in radiosonde and similar applications utilizing equipment designed for extreme compactness and light weight and requiring tube life of only a few hours.

<sup>o</sup> Without external shield.

← Indicates a change.

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DC GRID CURRENT. . . . .	10 max.	ma
PLATE INPUT. . . . .	3.3 max.	watts
PLATE DISSIPATION. . . . .	3 max.	watts
PEAK HEATER-CATHODE VOLTAGE. . . . .	0 max.	volts

### Typical Operation as 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

### CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

	Note	Min.	Max.	
Heater Current:				
With 5.2 volts ac on heater. . .	-	0.176	-	amp
With 6.6 volts ac on heater. . .	-	-	0.225	amp
Direct Interelectrode Capacitances:				
Grid to plate. . . . .	1	1.05	1.55	$\mu\mu\text{f}$
Grid to cathode and heater. . .	1	1.55	2.45	$\mu\mu\text{f}$
Plate to cathode and heater. . .	1	0.345	0.495	$\mu\mu\text{f}$
Amplification Factor . . . . .	2	17	31	
Transconductance . . . . .	3	4200	7600	$\mu\text{mhos}$
Transconductance . . . . .	4	4600	8000	$\mu\text{mhos}$
Plate Current. . . . .	3	8	16	ma
Plate Current. . . . .	4	9.5	18.5	ma
Plate Current. . . . .	5	-	300	$\mu\text{amp}$

Note 1: Without external shield.

Note 2: With 5.2 or 6.3 volts ac on heater, dc plate-supply volts = 120, and cathode resistor (ohms) = 220.

Note 3: With 5.2 volts ac on heater, dc plate-supply volts = 120, and cathode resistor (ohms) = 220.

Note 4: With 6.3 volts ac on heater, dc plate-supply volts = 120, and cathode resistor (ohms) = 220.

Note 5: With 5.2 volts ac on heater, dc plate-supply volts = 120, dc grid volts = -12, and cathode resistor (ohms) = 220.

### OPERATING CONSIDERATIONS

It is recommended that the cathode of the 6026 be connected directly to the heater.

The *flexible leads* of the 6026 are usually soldered to the circuit elements. Soldering of the connections should be made as far as possible from the glass button. If this precaution is not followed, the heat of the soldering operation may crack the glass seals and damage the tube.

→ Indicates a change.

12-56

DATA

TUBE DIVISION

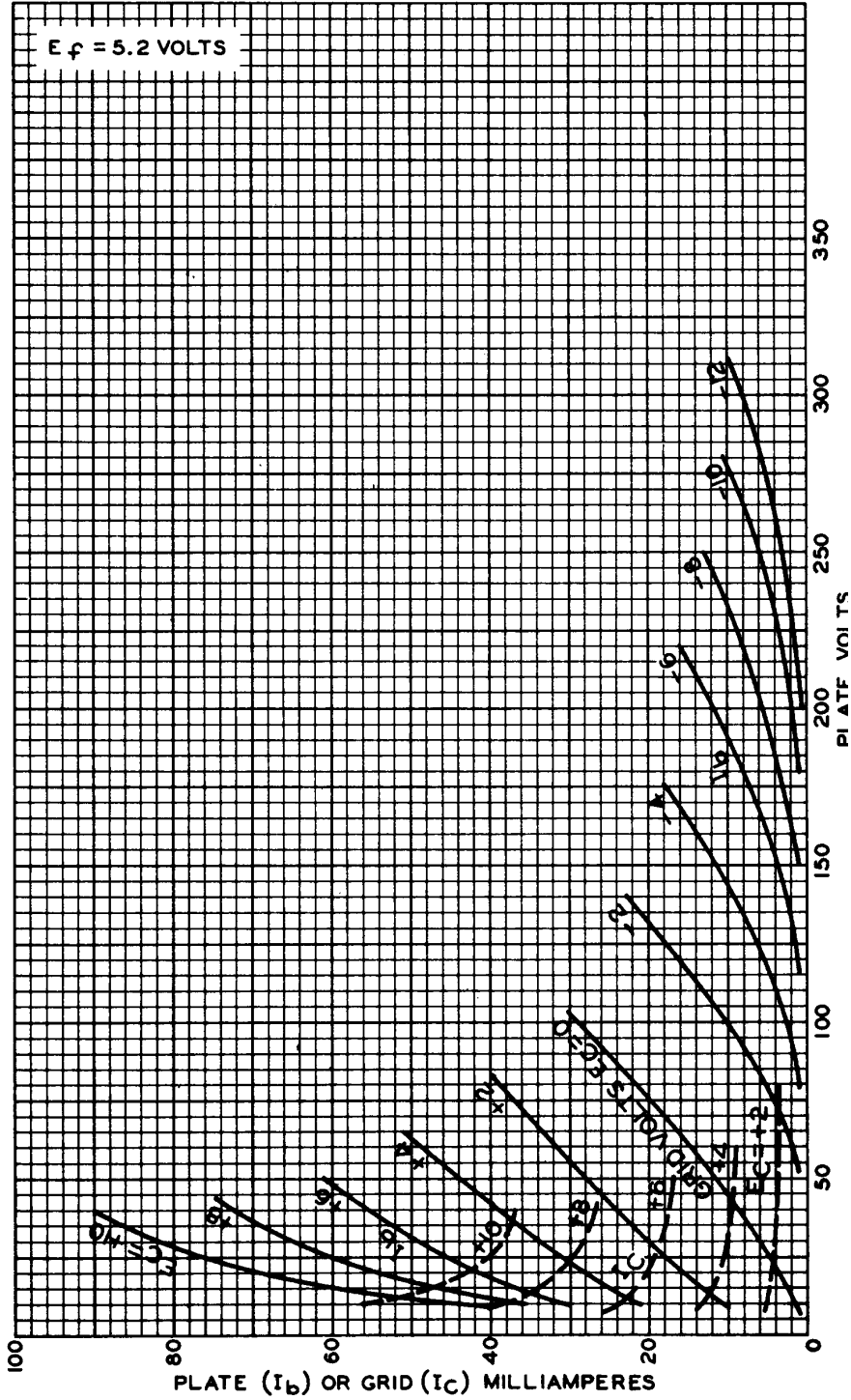
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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### AVERAGE PLATE CHARACTERISTICS



APRIL 16, 1951

TUBE DEPARTMENT  
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-7640