

desired operating plate current after initial tuning adjustments are completed. Grid-No.2 voltage must not exceed 400 volts under key-up conditions.

‡ Obtained from fixed supply, by grid-No.1 resistor, by cathode resistor, or by combination methods.

□ Measured at load of output circuit.

OPERATING CONSIDERATIONS

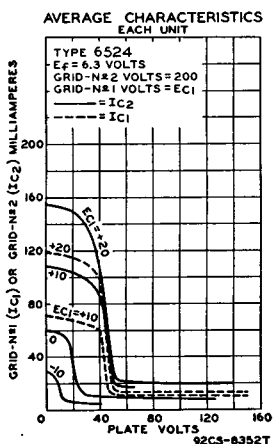
Type 6524 requires Septar seven-contact socket and may be mounted in any position. OUTLINE 14, *Outlines* Section.

For operation in Plate-Modulated Push-Pull RF Power Amplifier Service at 220 Mc, plate voltage should be reduced to 79 per cent of maximum rating, plate input to 80 per cent. At 470 Mc, plate voltage should be reduced to 75 per cent, plate input to 53 per cent.

For operation in Class C Telegraphy Service at 220 Mc, plate voltage should be reduced to 79 per cent of maximum rating, plate input to 78 per cent. At 470 Mc, plate voltage should be reduced to 76 per cent, plate input to 51 per cent.

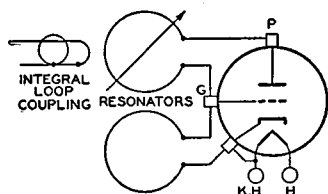
Free circulation of air around the tube is required. In addition, some forced-air cooling will generally be required to prevent exceeding the maximum bulb-temperature rating.

Plates show no color when tube is operated at maximum CCS or ICAS ratings.



FIXED-TUNED OSCILLATOR TRIODE

Pencil-type tube having integral resonators used in radiosonde service at a frequency of 1680 Mc. May be used at ambient temperatures ranging from -55°C to $+75^{\circ}\text{C}$. Fixed-Tuned Oscillator maximum plate dissipation, 3.6 watts.



6562

HEATER VOLTAGE RANGE ^o (AC/DC)	5.2 to 6.6	volts
HEATER CURRENT (At 6.0 volts)	0.160	ampere
FREQUENCY (Approx.)	1680	Mc
FREQUENCY-ADJUSTMENT RANGE [■]	± 12	Mc

^o This range of heater voltage is for radiosonde applications in which the heater is supplied from batteries and in which the equipment design requirements of minimum size, light weight, and high efficiency are the primary considerations even though the average life expectancy of the 6562 in such service is only a few hours.

[■] As supplied, tubes are adjusted to 1680 ± 4 megacycles.

FIXED-TUNED OSCILLATOR

Maximum Ratings:

DC PLATE VOLTAGE	120 max	volts
DC PLATE CURRENT	34 max	ma
DC GRID CURRENT	8 max	ma
PLATE INPUT	4 max	watts
PLATE DISSIPATION	3.6 max	watts
PEAK HEATER-CATHODE VOLTAGE	0 max	volts
AMBIENT-TEMPERATURE RANGE	-55 to $+75$	$^{\circ}\text{C}$

Operating Frequency Drift:

Maximum Frequency Drift:

For heater-voltage range of 5.2 to 6.6 volts, plate-voltage range of 95 to 117 volts, and ambient-temperature range of +22° to -40°C.....

+4 to -1

Mc

OPERATING CONSIDERATIONS

Type 6562 may be mounted in any position. *OUTLINE 68, Outlines Section.*

The flexible heater leads of the 6562 are usually soldered to the circuit elements. Soldering of these connections should not be made closer than $\frac{3}{4}$ " from the end of the tube (excluding cathode tab). If this precaution is not followed, the heat of the soldering operation may crack the glass seals of the leads and damage the tube. Under no circumstances should any of the electrodes be soldered to the circuit elements. Connections to the electrodes should be made by spring contact only.

The 6562 should be supported by a suitable clamp around the metal shell either above or below the frequency-adjustment screw. It is essential, however, that the pressure exerted on the shell by the clamp be held to a minimum because excessive pressure can distort the resonators and result in a change of frequency.

The plate connection should have a flexible lead which will accommodate variations in the relative position of the plate terminal in individual tubes.

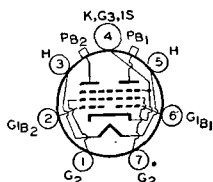
The 6562 may be mechanically tuned by adjustment of the frequency-adjustment screw located on the metal shell of the tube. A clockwise rotation of the frequency-adjustment screw will decrease the frequency, while a counterclockwise rotation will increase the frequency. The range of adjustment provided by the screw is ± 12 megacycles.

TWIN BEAM POWER TUBE

6850

Small, sturdy, heater-cathode type used as af power amplifier and modulator, as push-pull rf power amplifier and oscillator, and as frequency tripler. May be used with full input up

to 100 Mc and with reduced input up to 470 Mc. Class C Telegraphy maximum plate dissipation (per tube), CCS 20 watts, ICAS 25 watts. Requires Septar seven-contact socket and may be mounted in any position. *OUTLINE 14, Outlines Section.* Heater volts (ac/dc), $12.6 \pm 10\%$; amperes, 0.625. Except for heater rating, the 6850 is identical with type 6524.

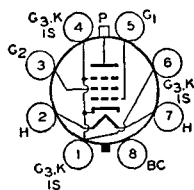


BEAM POWER TUBE

6883

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. Requires Octal socket and may be mounted in any position. *OUTLINE 17, Outlines Section.* Heater volts (ac/dc), $12.6 \pm 10\%$; amperes, 0.625. Except for heater rating, the 6883 is identical with type 6146.



POWER TRIODE

8000

Thoriated-tungsten-filament type used as af power amplifier and modulator and as rf power amplifier and oscillator. May be used with full input up to 30 Mc and with reduced input

up to 100 Mc. Class C Telegraphy maximum plate dissipation, CCS 125 watts, ICAS 175 watts.

