

Driving Power (Approx.) ^{▲▲}	2	watts
Useful Power Output (Approx.)—75-per-cent circuit efficiency.....	210	watts

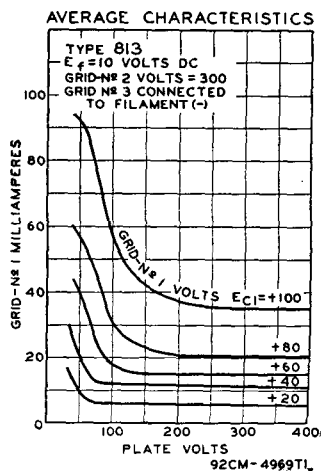
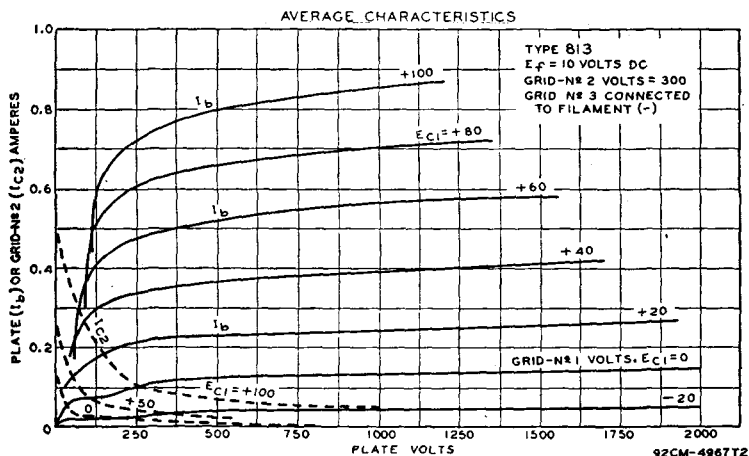
• Power input is 1.23 times the product of dc plate voltage and dc plate current.

▲ Grid No.3 should be connected to the mid-tap on the filament-transformer secondary winding or the negative end of a filament operated on dc.

△ Obtained from a separate, rectified, unfiltered, single-phase, full-wave supply in phase with the plate supply, or from the rectified, unfiltered, single-phase, full-wave supply by means of taps on the plate transformer.

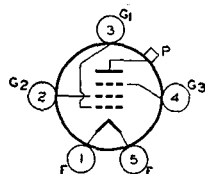
◊ Obtained from grid-No.1 resistor of value shown or from a combination of grid-No.1 resistor and cathode resistor. Fixed-bias operation is not recommended. The bias resistors should not be bypassed for the plate and grid-No.2 voltage supply frequency.

▲▲ From a driver having a rectified, unfiltered, single-phase, full-wave plate supply.



BEAM POWER TUBE

Thoriated-tungsten-filament type used as rf power amplifier and oscillator. May be used with full input up to 30 Mc. For operation at 50 Mc, plate voltage and plate input should be re-



814

duced to 80 per cent; at 75 Mc, to 64 per cent. Class C Telegraphy maximum plate dissipation, CCS 50 watts, ICAS 65 watts. Requires Small five-contact socket and may be mounted in vertical position with base down, or in horizontal position with pins 2 and 4 in vertical plane. OUTLINE 48, *Outlines* Section. Plate shows no color when tube is operated at maximum CCS ratings, and shows a barely perceptible red color at maximum ICAS ratings.

FILAMENT VOLTAGE (AC/DC).....	10	volts
FILAMENT CURRENT.....	3.25	amperes
TRANSCONDUCTANCE (For plate current of 39 milliamperes).....	3300	μ hos
DIRECT INTERELECTRODE CAPACITANCES:		
Grid No.1 to plate.....	0.15 <i>max</i>	μ f
Grid No.1 to filament, grid No.3, and grid No.2.....	13.5	μ f
Plate to filament, grid No.3, and grid No.2.....	13.5	μ f

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telegraphy# and RF POWER AMPLIFIER—Class C FM Telephony

Maximum Ratings:	CCS	ICAS	
DC PLATE VOLTAGE.....	1250 <i>max</i>	1500 <i>max</i>	volts
DC GRID-NO.2 (SCREEN-GRID) VOLTAGE.....	400 <i>max</i>	400 <i>max</i>	volts
DC GRID-NO.1 (CONTROL-GRID) VOLTAGE.....	-300 <i>max</i>	-300 <i>max</i>	volts
DC PLATE CURRENT.....	150 <i>max</i>	150 <i>max</i>	ma
DC GRID-NO.1 CURRENT.....	15 <i>max</i>	15 <i>max</i>	ma
PLATE INPUT.....	180 <i>max</i>	225 <i>max</i>	watts
GRID-NO.2 INPUT.....	10 <i>max</i>	10 <i>max</i>	watts
PLATE DISSIPATION.....	50 <i>max</i>	65 <i>max</i>	watts

Typical Operation:

DC Plate Voltage.....	1000	1250	1500	volts
DC Grid-No.3 (Suppressor-Grid) Voltage ^Δ	0	0	0	volts
DC Grid-No.2 Voltage [®]	300	300	300	volts
From series resistor of.....	40000	42000	50000	ohms
DC Grid-No.1 Voltage [†] ϕ	-70	-80	-90	volts
From grid-No.1 resistor of.....	7000	8000	9000	ohms
From cathode resistor of.....	395	455	490	ohms
Peak RF Grid-No.1 Voltage.....	150	165	170	volts
DC Plate Current.....	150	144	150	ma
DC Grid-No.2 Current.....	17.5	22.5	24	ma
DC Grid-No.1 Current (Approx.).....	10	10	10	ma
Driving Power (Approx.).....	1.35	1.5	1.5	watts
Power Output (Approx.).....	100	130	160	watts

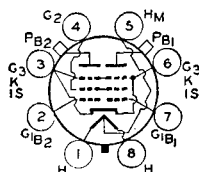
Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

^Δ Grid-No.3 should be connected to the mid-tap on the filament-transformer secondary winding or to the negative end of filament operated on dc.

[®] Obtained from separate source, from plate-voltage supply with a voltage divider, or through series resistor of value shown. If preceding stage is keyed, partial fixed bias is required.

[†] For ac filament supply.

ϕ Obtained preferably from grid-No.1 resistor or from a combination of grid-No.1 resistor with either fixed supply or cathode resistor.



TWIN BEAM POWER TUBE

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 125 Mc.

For operation at 175 Mc, plate voltage

and plate input should be reduced to 80 per cent of maximum ratings; at 200 Mc, to 70 per cent. Class C Telegraphy maximum plate dissipation (per tube), CCS 20 watts, ICAS 25 watts. Requires Octal socket and may be mounted in any position. OUTLINE 25, *Outlines* Section. Plates show no color when tube is operated at maximum CCS or ICAS ratings.

815