



amateur service newsletter  
W6SAI

RECOMMENDED RATINGS: 6C21  
FOR CLASS C AND CLASS AB2CATHODE DRIVEN SERVICE

Electrical Characteristics

Filament Voltage	7.5 volts
Current	15 amperes
Amplification factor	30 average
Direct Inter-electrode capacitances	
Grid-plate	4.3 $\mu\mu\text{f}$
Grid-filament	9.5 $\mu\mu\text{f}$
Plate-filament	2.0 $\mu\mu\text{f}$

Radio Frequency Amplifier and Oscillator - Class C

Maximum Ratings	Plate-modulated	Telegraphy
DC Plate voltage	4500	6000 volts
DC Plate Current	500	600 ma
Plate Dissipation	300	450 watts
Grid Dissipation	50	50 watts
Maximum Frequency	40	40 Mc. full ratings

Typical Operation - One Tube

DC Plate voltage	3000	4000	4500	3000	4000	5000	volts
DC Grid voltage	-300	-350	-400	-200	-250	-350	volts
DC Fixed bias	-150	-200	-230	-150	-200	-250	volts
DC Plate current	380	340	345	500	450	450	ma
DC Grid current	60	43	50	95	85	90	ma
Peak RF Grid voltage	490	525	585	400	410	570	volts
Grid Resistor	2500	3500	3500	2500	3000	3500	ohms
Driving Power (Approx.)	30	23	29	35	35	46	watts
Grid Dissipation	14	10	12	21	18	24	watts
Plate Power Input	1150	1360	1550	1500	1800	2250	watts
Plate Dissipation	300	300	300	450	450	450	watts
Plate Power Output	850	1060	1250	1050	1350	1800	watts

Radio Frequency Amplifier, Cathode Driven, Class AB2

Typical Operation - One Tube

DC Plate voltage	3000 volts
DC Fixed bias	-50 volts
DC Resting Plate Current	80 ma (approx.)
DC Single Tone Plate Current	450 ma
DC Single Tone Grid Current	62 ma
Driving Power, Single Tone	105 watts
Plate Power Input, Single Tone	1350 watts
Plate Dissipation	450 watts
Power Gain	8.5
Input Impedance	320 ohms
Plate Load Impedance	4100 ohms