

Federal Telephone and Radio Corporation



100 KINGSLAND ROAD • CLIFTON, NEW JERSEY



TYPE 5917

NUTLEY 2-3800

The 5917 is a three electrode tube designed for use as an RF amplifier and oscillator. The anode is water-cooled by an integral water jacket and capable of dissipating 5 kilowatts. The cathode is a thoriated tungsten filament. Maximum ratings apply up to 110 megacycles. The ring seal grid connector, coaxial filament terminals, and self contained water jacket facilitate its use in coaxial circuits for high-frequency operation.

ELECTRICAL DATA

Filament Voltage	7.5	Volts
Filament Current	48	Amperes
Filament Starting Current	100	Amperes max.
Amplification Factor	20	
Interelectrode Capacitances		
Grid - Plate	20	μf
Grid - Filament	48	μf
Plate - Filament	1.2	μf

MECHANICAL DATA

Mounting Position - Vertical, Anode Down	
Type of Cooling - Water and Forced Air	
Minimum Water Flow on Anode	3 GPM
Maximum Outgoing Water Temperature	70° C
Air Flow to Filament Stem	6 CFM
Maximum Glass Temperature	150° C
Net Weight, Approx.	6.5 Pounds

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Radio-Frequency Power Amplifier and Oscillator - Class C Telegraphy
Key-down conditions per tube without AM *

Maximum Ratings, Absolute Values

D-C Plate Voltage	4,000	Volts
D-C Plate Current	2	Amperes
Grid Dissipation	150	Watts
Plate Input	8	Kilowatts
Plate Dissipation	5	Kilowatts

TYPE 5917

Typical Operation, Grounded-Grid Circuit at 110 Mc.

D-C Plate Voltage	3,700	4,000	Volts
D-C Grid Voltage	-450	-550	Volts
D-C Plate Current	1.8	1.85	Amperes
D-C Grid Current, Approx.	0.225	0.275	Amperes
Driving Power, Approx.	1.6	1.9	Kilowatts
Power Output, Approx. \int	6.85	7.5	Kilowatts

* Modulation essentially negative may be used if the positive peak of the envelope does not exceed 115% of the carrier conditions.

\int Includes power transferred from driver stage.

