



ELECTRONIC TUBE REFERENCE

F342A

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Federal water-cooled high-power triode for RF amplification, oscillation, and Class B modulation. Approximately 25 kW plate dissipation and 20 kV capability support very substantial communications and broadcast transmitter power.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	20 V / 71 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	20000 V
MAXIMUM PLATE DISSIPATION	25000 W
MAXIMUM CATHODE CURRENT	13.5 A
Applicable promoted fields mapped from printed headings; specialized microwave/imaging/electrode data retained densely in TUBE_SECTION_PARAMETER.	

Federal F-342-A water-cooled power triode for RF amplifier, oscillator and Class B modulator service; 25 kW anode dissipation.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 ITT

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1962 ITT

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Starting Current	142 A	—
Filament Cold Resistance	0.021 ohm	—
Peak Cathode Current	13.5 A	—
Grid-Plate Capacitance	25 pF	—
Grid-Filament Capacitance	19 pF	—
Plate-Filament Capacitance	2.5 pF	—
RF Frequency Full Rating Maximum	4 MHz	—
RF Reduced Rating Frequency	16 MHz	—
Typical AF Plate Voltage	15000 V	—
RF Class C Plate Input Maximum	50 kW	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 ITT Industrial and Transmitting Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1962 ITT INDUSTRIAL AND TRANSMITTING TUBES

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FilamentStartingCurrent	142 A	—
Peak Cathode Current	13.5 A	—
AnodeCoolingMethod	Water	—
MaximumOperatingFrequency	4 MHz full rating; 16 MHz reduced rating	—
Maximum Anode Dissipation	25000 W	Absolute maximum / applicable service

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PlateFilamentCapacitance	2.5 pF	—

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

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