



ELECTRONIC TUBE REFERENCE

F6399

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Water-cooled industrial oscillator triode with integral water jacket and approximately 6 kW plate-dissipation capability for RF heating and power generation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	11 V / 29 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
AMPLIFICATION FACTOR	25
MAXIMUM PLATE VOLTAGE	6200 V
MAXIMUM PLATE DISSIPATION	6000 W
Published maximum ratings and characteristics audited; remaining numeric data retained densely in parameter table.	

Three-electrode industrial oscillator tube with integral water jacket and 6 kW plate dissipation capability.

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
Published value	6 W	6 Kilowatts Plate Dissipation
p Filament Current	29 A	p Filament Current 29 Amperes
Grid-Plate	115	Grid-Plate 115 ppf
Grid-Filament	13.8	Grid-Filament 13.8 puf
Plate-Filament	1.7	Plate-Filament 1.7 puf
Temperature ‘	70	Temperature ‘ 70° C
Temperature	150	Temperature 150° C
Frequency [1]	30	Frequency 30 50 Megacycles
Frequency [2]	50	Frequency 30 50 Megacycles
Published value	6 V	6 Kilowatts Plate Dissipation Rated Plate Voltage
OSCILLATOR—CLASS C TELEGRAPHY DC Plate Voltage [1]	4500 V	OSCILLATOR—CLASS C TELEGRAPHY DC Plate Voltage 4500 5,000 6,000 Volts
OSCILLATOR—CLASS C TELEGRAPHY DC Plate Voltage [2]	5000 V	OSCILLATOR—CLASS C TELEGRAPHY DC Plate Voltage 4500 5,000 6,000 Volts
OSCILLATOR—CLASS C TELEGRAPHY DC Plate Voltage [3]	6000 V	OSCILLATOR—CLASS C TELEGRAPHY DC Plate Voltage 4500 5,000 6,000 Volts
(Key-down conditions per tube without amplitude modulation)+ DC Grid Vo ’age [1]	-500	(Key-down conditions per tube without amplitude modulation)+ DC Grid Vo ’age —500 —600 —800 VOH’S
(Key-down conditions per tube without amplitude modulation)+ DC Grid Vo ’age [2]	-600	(Key-down conditions per tube without amplitude modulation)+ DC Grid Vo ’age —500 —600 —800 VOH’S

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
(Key-down conditions per tube without amplitude modulation)+ DC Grid Vo 'age [3]	-800	(Key-down conditions per tube without amplitude modulation)+ DC Grid Vo 'age —500 —600 —800 VOH'S
Maximum Ratings, Absolute Values Peak R-F Grid Voltage [1]	1100	Maximum Ratings, Absolute Values Peak R-F Grid Voltage 1,100 1,300 1,500 Volts
Maximum Ratings, Absolute Values Peak R-F Grid Voltage [2]	1300	Maximum Ratings, Absolute Values Peak R-F Grid Voltage 1,100 1,300 1,500 Volts
Maximum Ratings, Absolute Values Peak R-F Grid Voltage [3]	1500	Maximum Ratings, Absolute Values Peak R-F Grid Voltage 1,100 1,300 1,500 Volts
DC Plate Current [1]	1 A	DC Plate Current 1.0 1.2 1.4 Amps.
DC Plate Current [2]	1.2 A	DC Plate Current 1.0 1.2 1.4 Amps.
DC Plate Current [3]	1.4 A	DC Plate Current 1.0 1.2 1.4 Amps.
DC Plate Voltage	6200 V	DC Plate Voltage 6,200 Volts DC Grid Current,
DC Grid Voltage [1]	-1500 V	DC Grid Voltage —1,500 Volts Approximate 0.12 0.3 0.15 Amps.
DC Grid Voltage [2]	0.12 V	DC Grid Voltage —1,500 Volts Approximate 0.12 0.3 0.15 Amps.
DC Grid Voltage [3]	0.3 V	DC Grid Voltage —1,500 Volts Approximate 0.12 0.3 0.15 Amps.
DC Grid Voltage [4]	0.15 V	DC Grid Voltage —1,500 Volts Approximate 0.12 0.3 0.15 Amps.
DC Plate Current [1]	1.5 mA	DC Plate Current 1.5 Amps. Approximate 120 160 210 Watts
DC Plate Current [2]	120 mA	DC Plate Current 1.5 Amps. Approximate 120 160 210 Watts
DC Plate Current [3]	160 mA	DC Plate Current 1.5 Amps. Approximate 120 160 210 Watts
DC Plate Current [4]	210 mA	DC Plate Current 1.5 Amps. Approximate 120 160 210 Watts
DC Grid Current	160 mA	DC Grid Current 0.16 Amps. Power Ouj'puf.
Plate Input [1]	9 kW	Plate Input 9 KW Approximate 3 4 6 KW
Plate Input [2]	3 kW	Plate Input 9 KW Approximate 3 4 6 KW
Plate Input [3]	4 kW	Plate Input 9 KW Approximate 3 4 6 KW
Plate Input [4]	6 kW	Plate Input 9 KW Approximate 3 4 6 KW
Plate Dissipation	6 kW	Plate Dissipation 6 KW e

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
– GRID – BLACK [1]	2	— GRID — BLACK 2 ON EACH TERMINAL.(8)
– GRID – BLACK [2]	8	— GRID — BLACK 2 ON EACH TERMINAL.(8)
Published value	3	3 - GRID — BLAGK
Published value	5	5— GRID — BLACK
Published value	10 W	10 POWER TRIODE
Published value	6 W	6 Kilowatts Plate Dissipation designers.
Published value	1400 W	1400 POWER TRIODE



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

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum full-rating frequency	30 MHz	—
Cooling method	water	—