



ELECTRONIC TUBE REFERENCE

F8146

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

General-purpose metal-ceramic water-cooled power triode for amplifier, oscillator, and Class B modulator service under continuous or pulsed conditions. Approximately 40 kW plate dissipation and 18 kV capability support very-high-power transmitters.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	11 V / 155 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	18000 V
MAXIMUM PLATE DISSIPATION	40000 W
MAXIMUM GRID DISSIPATION	800 W
MAXIMUM CATHODE CURRENT	8 A
<i>Cooling: Water</i>	

General-purpose metal-and-ceramic power triode for amplifier, oscillator, or Class B modulator service under CW or pulsed conditions. F8146 is the 40 kW water-cooled variant.

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	17	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	53 pF	—
Grid-filament capacitance	58 pF	—
Plate-filament capacitance	3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum CW plate voltage	11000 V	—
Maximum pulse plate voltage	18000 V	—
Maximum instantaneous peak plate voltage	20000 V	—
Maximum grid dissipation	800 W	—
Plate dissipation	40000 W	—
Maximum rated frequency	110 MHz	—
Pulse output power	1.6 MW	—

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GridPlateCapacitance	53 pF	—
GridFilamentCapacitance	58 pF	—
PlateFilamentCapacitance	3 pF	—
FilamentStartingCurrent	500 A	—
FilamentColdResistance	0.008 ohm	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Current	8 A	ClassC
Maximum DC Grid Voltage	-2000 V	ClassC
Maximum DC Grid Current	800 mA	ClassC
Maximum Plate Input	80 kW	ClassC

TUBE TINKER

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

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