



ELECTRONIC TUBE REFERENCE

YU148

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Forced-air-cooled high-mu power triode for grounded-grid VHF amplifier, oscillator, and modulator service. Approximately 6 kW plate dissipation, 7 kV capability, and very high gain support powerful professional RF stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	7 V / 78 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
AMPLIFICATION FACTOR	200
MAXIMUM PLATE VOLTAGE	7000 V
MAXIMUM PLATE DISSIPATION	6000 W
MAXIMUM GRID DISSIPATION	225 W
MAXIMUM CATHODE CURRENT	3.5 A
<i>Promoted from the highest applicable published maximum-rating/service block; additional service-specific limits and operating conditions are retained as parameters.</i>	

The EIMAC YU148 is a forced-air-cooled high-mu power triode for grounded-grid vhf amplifier, oscillator, and modulator service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 Eimac Tube Manual

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

1975 EIMAC TUBE MANUAL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	7 V	—
Heater current nominal	78 A	—
Amplification factor	200	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	42 pF	—
Output/plate-cathode capacitance	0.28 pF	—
Grid-plate/feedback capacitance	24.5 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	7000 V	—
Maximum plate dissipation	6000 W	—
Maximum grid dissipation	225 W	—
Maximum cathode or pulse plate current	3.5 A	—
Maximum rated frequency	0.108 GHz	—
Typical RF frequency	108 MHz	ClassC;CathodeDriven
Typical plate voltage	6000 V	ClassC
Typical grid voltage	-100 V	ClassC
Typical plate current	2.56 A	ClassC
Typical grid current	480 mA	ClassC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical peak RF cathode voltage	340 V	ClassC
Typical plate dissipation	3900 W	ClassC
Typical useful output power	12000 W	ClassC
Typical driving power	800 W	ClassC
Load impedance	1200 ohm	ClassC
Drive impedance	77 ohm	ClassC



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1976 Eimac Tube Manual

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1976 EIMAC TUBE MANUAL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	7 V	—
Heater current nominal	78 A	—
Amplification factor	200	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	42 pF	—
Output/plate-cathode capacitance	0.28 pF	—
Grid-plate/feedback capacitance	24.5 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	7000 V	—
Maximum plate dissipation	6000 W	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum grid dissipation	225 W	—
Maximum cathode or pulse plate current	3.5 A	—
Maximum rated frequency	0.108 GHz	—
Typical RF frequency	108 MHz	ClassC;CathodeDriven
Typical plate voltage	6000 V	ClassC
Typical grid voltage	-100 V	ClassC
Typical plate current	2.56 A	ClassC
Typical grid current	480 mA	ClassC
Typical peak RF cathode voltage	340 V	ClassC
Typical plate dissipation	3900 W	ClassC
Typical useful output power	12000 W	ClassC
Typical driving power	800 W	ClassC
Load impedance	1200 ohm	ClassC
Drive impedance	77 ohm	ClassC



SOURCE OPERATING CONDITIONS

199X Svetlana

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

199X SVETLANA

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current @	7 V	modulator service. A modern mesh filament
Input	42 pF	modulator service. A modern mesh filament
Output	24.5 pF	modulator service. A modern mesh filament
Feedback	0.28 pF	modulator service. A modern mesh filament

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Plate voltage	7000 V	Maximum Ratings
DC Plate current	3.5 A	Maximum Ratings
Plate dissipation	6000 W	Maximum Ratings
Grid dissipation	225 W	Maximum Ratings
(Frequencies to	110 MHz	Typical operation
Plate voltage 4800 5700	6000 V	Typical operation
Grid voltage 0 0	-100 V	Typical operation
Plate current 2.3 2.5	2.56 A	Typical operation
Grid current* 0.32 0.33	480 mA	Typical operation
Peak RF cathode voltage* 215 224	340 V	Typical operation
Calculated driving power* 500 600	800 W	Typical operation
Plate dissipation 3200 4100	3900 W	Typical operation
Useful output power 8000 10000	12000 W	Typical operation
below	250 °C	Typical operation
maintain these temperatures below	225 °C	Typical operation
with an inlet-air temperature of	50 °C	Typical operation
tabulated. At frequencies above	40 MHz	Typical operation

TUBE TINKER

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