



ELECTRONIC TUBE REFERENCE

8912

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Compact rugged high-mu planar triode for continuous or pulsed oscillator, amplifier, and frequency-multiplier service through approximately 6 GHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 650 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.03 S
AMPLIFICATION FACTOR	85
MAXIMUM PLATE VOLTAGE	2000 V
MAXIMUM PLATE DISSIPATION	50 W
MAXIMUM GRID DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	3 A
<i>Promoted values are taken from printed General Characteristics / Maximum Ratings. Additional published conditions and operating data are preserved in parameters.</i>	

The EIMAC 8912 is a compact rugged high-mu planar triode for cw or pulsed oscillator, amplifier, and frequency-multiplier service to 6 ghz.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Eimac

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

1962 EIMAC

Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-Cathode Capacitance	5 pF	—
Grid-Plate Capacitance	1.5 pF	—
Plate-Cathode Capacitance	0.06 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode Heating Time	60 s	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Plate Voltage	2500 V	—
DC Plate Current	100 mA	—
Peak Plate Current	3 A	Duty=.0025
Peak Plate Current	1.5 A	Duty=.01
Frequency	6 GHz	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Eimac Tube Manual

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

1965 EIMAC TUBE MANUAL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
viding in excess of [1]	1 GHz	viding in excess of 1 kw peak power at 6 GHz.
viding in excess of [2]	6 GHz	viding in excess of 1 kw peak power at 6 GHz.
Heater: Voltage [1]	6.3 V	Heater: Voltage 6.3 ± 5%
Heater: Voltage [2]	5 V	Heater: Voltage 6.3 ± 5%
Current, at [1]	6.3 A	Current, at 6.3 volts 0.65
Current, at [2]	650 mA	Current, at 6.3 volts 0.65
Cathode Heating Time	60	Cathode Heating Time 60 sec.
Transconductance (Average)	30	Transconductance (Average) 30 mmhos
Plate Dissipation (maximum)	2 W	Plate Dissipation (maximum)2
Published value	2	2. With forced air cooling or appropriate conduction and/or convection cooling.
Ceramic/Metal Seals	250	Ceramic/Metal Seals 250OC
RF OSCILLATOR DC GRID VOLTAGE	-100 V	RF OSCILLATOR DC GRID VOLTAGE -100 vdc
PULSE DUBATlo N1	3	PULSE DUBATlo N1 3.0 HS
PEAK HEATER-CATHODE VOLTAGE2 . ±	50 V	PEAK HEATER-CATHODE VOLTAGE2 . ±50v
DC PLATE VOLTAGE [1]	2 GHz	DC PLATE VOLTAGE 2.0 kvdc FREQUENCY . 6.0 GHz
DC PLATE VOLTAGE [2]	6 GHz	DC PLATE VOLTAGE 2.0 kvdc FREQUENCY . 6.0 GHz
PEAK PLATE VOLTAGE	2.5 kV	PEAK PLATE VOLTAGE 2.5 kv
DC PLATE CURPENT [1]	100	DC PLATE CURPENT 100 mAdc 1. For applications requinng longer pulse duration
DC PLATE CURPENT [2]	1	DC PLATE CURPENT 100 mAdc 1. For applications requinng longer pulse duration
PEAK PLATE CUBF}ENT ., [1]	3	PEAK PLATE CUBF}ENT ,... 3.0 a at .0025 DUTY Product Manager, EIMAC-Division of Varian, Salt
PEAK PLATE CUBF}ENT ., [2]	25	PEAK PLATE CUBF}ENT ,... 3.0 a at .0025 DUTY Product Manager, EIMAC-Division of Varian, Salt
PEAK GRID CURRENT [1]	1.2 A	PEAK GRID CURRENT 1.2 a at .0025 DUTY

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PEAK GRID CURRENT [2]	25 A	PEAK GRID CURRENT 1.2 a at .0025 DUTY
Published value [1]	0.7	0.7 a at .01 DUTY 2. The heater is electrically isolated from the cathode.
Published value [2]	1	0.7 a at .01 DUTY 2. The heater is electrically isolated from the cathode.
Published value [3]	2	0.7 a at .01 DUTY 2. The heater is electrically isolated from the cathode.



SOURCE DATA APPENDIX

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	6.3 V	—
Heater current nominal	650 mA	—
Transconductance	30000 μ S	—
Amplification factor	85	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	5 pF	—
Output/plate-cathode capacitance	1.5 pF	—
Grid-plate/feedback capacitance	0.06 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	2500 V	—
Maximum plate dissipation	50 W	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum grid dissipation	1.5 W	—
Maximum cathode or pulse plate current	3 A	—
Maximum rated frequency	6 GHz	—
DC plate voltage	2000 V	ClassC;Pulsed
Peak plate voltage	2500 V	ClassC;Pulsed
DC plate current	100 mA	—
DC grid current	30 mA	—
Peak plate current at 0.0025 duty	3 A	—
Peak plate current at 0.01 duty	1.5 A	—
Peak grid current at 0.0025 duty	1.2 A	—
Peak grid current at 0.01 duty	700 mA	—
DC grid voltage	-100 V	—
Pulse duration	3 us	—
Duty factor	0.01	—



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	6.3 V	—
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DC plate current	100 mA	—
DC grid current	30 mA	—
Peak plate current at 0.0025 duty	3 A	—
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Peak grid current at 0.0025 duty	1.2 A	—
Peak grid current at 0.01 duty	700 mA	—
DC grid voltage	-100 V	—
Pulse duration	3 us	—
Duty factor	0.01	—

TUBE TINKER

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and their source documents.

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