



ELECTRONIC TUBE REFERENCE

Y654

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Eimac miniature rugged high-mu planar power triode for continuous-wave and pulsed RF, modulator, and regulator service to approximately 3 GHz. High voltage and substantial dissipation support demanding microwave and control applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.3 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.038 S
AMPLIFICATION FACTOR	135
MAXIMUM PLATE VOLTAGE	10000 V
MAXIMUM PLATE DISSIPATION	300 W
MAXIMUM GRID DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	150 mA
<i>Promoted from printed planar-triode general characteristics and pulsed/CW maximum ratings.</i>	

The EIMAC Y654 is a miniature rugged high-mu planar triode for cw and pulsed rf, modulator, and regulator service to 3 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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	135	—
Transconductance	38000 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	10000 V	—
Maximum plate dissipation	150 W	—
Maximum grid dissipation	1.5 W	—
Maximum pulse cathode current	9 A	—



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	1.3 A	—
Transconductance	50000 μ S	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	135	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	9.75 pF	—
Output/plate-cathode capacitance	0.065 pF	—
Grid-plate/feedback capacitance	1.05 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	12000 V	—
Maximum plate dissipation	300 W	—
Maximum grid dissipation	1.5 W	—
Maximum cathode or pulse plate current	9 A	—
Maximum rated frequency	3 GHz	—
Grid-pulsed DC plate voltage	8000 V	GridPulsed
Plate-pulsed peak plate voltage	10000 V	PlatePulsed
Pulse plate current	6 A	—
Pulse grid current	2.5 A	—
Pulse duration	6 us	—
Duty factor	0.0033	—
Representative DC plate voltage	4000 V	GridPulsedAmplifier
Representative peak video plate current	1.8 A	GridPulsedAmplifier
Representative useful output	2500 W	GridPulsedAmplifier
Representative gain	11 dB	GridPulsedAmplifier
CW maximum plate voltage	7500 V	CW



SOURCE DATA APPENDIX

1976 Eimac Tube Manual

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

1976 EIMAC TUBE MANUAL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current nominal	1.3 A	—
Transconductance	50000 μ S	—
Amplification factor	135	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	9.75 pF	—
Output/plate-cathode capacitance	0.065 pF	—
Grid-plate/feedback capacitance	1.05 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	12000 V	—
Maximum plate dissipation	300 W	—
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Maximum cathode or pulse plate current	9 A	—
Maximum rated frequency	3 GHz	—
Grid-pulsed DC plate voltage	8000 V	GridPulsed
Plate-pulsed peak plate voltage	10000 V	PlatePulsed
Pulse plate current	6 A	—
Pulse grid current	2.5 A	—
Pulse duration	6 μ s	—
Duty factor	0.0033	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Representative DC plate voltage	4000 V	GridPulsedAmplifier
Representative peak video plate current	1.8 A	GridPulsedAmplifier
Representative useful output	2500 W	GridPulsedAmplifier
Representative gain	11 dB	GridPulsedAmplifier
CW maximum plate voltage	7500 V	CW

TUBE TINKER

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