



ELECTRONIC TUBE REFERENCE

8938

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

High-power transmitting triode for RF amplification, oscillation, modulation, or related transmitter and industrial service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	5 V / 10.5 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.055 S
AMPLIFICATION FACTOR	125
MAXIMUM PLATE VOLTAGE	4000 V
MAXIMUM PLATE DISSIPATION	1500 W
MAXIMUM GRID DISSIPATION	25 W
MAXIMUM CATHODE CURRENT	1 A
<i>Promoted from printed general-characteristics and absolute-maximum-ratings blocks.</i>	

The EIMAC 8938 is a rugged coaxial-base ceramic/metal high-mu power triode for vhf/uhf linear, power, and pulse amplification.



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	125	—
Transconductance	55000 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC plate voltage	6000 V	—
Maximum plate dissipation	600 W	—
Maximum grid dissipation	25 W	—
Maximum pulse cathode current	10 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	5 V	—
Heater current nominal	10.5 A	—
Transconductance	55000 μ S	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	125	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	39 pF	—
Output/plate-cathode capacitance	13 pF	—
Grid-plate/feedback capacitance	0.14 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	4000 V	—
Maximum plate dissipation	1500 W	—
Maximum grid dissipation	25 W	—
Maximum cathode or pulse plate current	1 A	—
Maximum rated frequency	0.5 GHz	—
Maximum DC plate current	1 A	—
CW frequency of maximum ratings	500 MHz	—
Class AB2 plate voltage	3500 V	ClassAB2;CathodeDriven
Class AB2 single-tone plate current	970 mA	ClassAB2;CathodeDriven
Class AB2 useful output power	2030 W	ClassAB2;CathodeDriven
Class C plate voltage	3000 V	ClassC
Class C useful output power	1570 W	ClassC
Class C power gain	12.8 dB	ClassC



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	5 V	—
Heater current nominal	10.5 A	—
Transconductance	55000 μ S	—
Amplification factor	125	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-cathode capacitance	39 pF	—
Output/plate-cathode capacitance	13 pF	—
Grid-plate/feedback capacitance	0.14 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	4000 V	—
Maximum plate dissipation	1500 W	—
Maximum grid dissipation	25 W	—
Maximum cathode or pulse plate current	1 A	—
Maximum rated frequency	0.5 GHz	—
Maximum DC plate current	1 A	—
CW frequency of maximum ratings	500 MHz	—
Class AB2 plate voltage	3500 V	ClassAB2;CathodeDriven
Class AB2 single-tone plate current	970 mA	ClassAB2;CathodeDriven

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Class AB2 useful output power	2030 W	ClassAB2;CathodeDriven
Class C plate voltage	3000 V	ClassC
Class C useful output power	1570 W	ClassC
Class C power gain	12.8 dB	ClassC