ELECTRONIC TUBE REFERENCE

8242

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Water-cooled Eimac medium-mu power triode for amplifier, oscillator, modulator, and RF power service.

General characteristics

BASE DESIGNATION	—	**BASE PINS**	—
NOMINAL HEATER	7.5 V / 51.5 A	**PARALLEL HEATER**	— / —
HEATING	Direct	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Triode	
TRANSCONDUCTANCE	0.02 S
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	6000 V
MAXIMUM PLATE DISSIPATION	5000 W
MAXIMUM GRID DISSIPATION	150 W
MAXIMUM CATHODE CURRENT	2.5 A

Promoted from printed general-characteristics and maximum-ratings blocks.

The Eimac 8242/3CW5000A3 is a medium-mu water-cooled power triode for amplifier, oscillator, modulator, and RF power service.

SOURCE OPERATING CONDITIONS

1962 Eimac

SOURCE PDF

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	20	—
Transconductance	20000 uS	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC plate voltage	6000 V	—
Maximum plate dissipation	5000 W	—
Representative maximum-signal plate current	2.5 A	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	7.5 V	—
Heater/filament current	51.5 A	—
Amplification factor	20	—
Transconductance	20000 uS	—

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Input/grid-cathode capacitance	**35 pF**	—
Output/plate-cathode capacitance	**0.9 pF**	—
Feedback/grid-plate capacitance	**20 pF**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum plate voltage	**6000 V**	—
Maximum plate dissipation	**5000 W**	—
Maximum grid dissipation	**150 W**	—
Maximum plate/cathode current	**2.5 A**	—
Frequency for maximum ratings	**75 MHz**	—
Typical RF plate voltage	**4000 V**	ClassC
Typical RF output power	**7500 W**	ClassC
Typical RF output power	**10000 W**	PlateVoltage=5000-6000V

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**
Amplification factor	**22**	—
Transconductance	**20000 uS**	—
Heater/filament voltage	**7.5 V**	—
Heater/filament current	**50 A**	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	6000 V	—
Maximum plate dissipation	5000 W	—
Maximum grid dissipation	150 W	—
Maximum cathode/plate current	3.2 A	—
Frequency for maximum ratings	110 MHz	—
Typical RF plate voltage	6000 V	ClassC
Typical AF max-signal plate current	3 A	ClassB

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-filament capacitance	35–35 pF	—
Output/plate-filament capacitance	0.9–0.9 pF	—
Feedback/grid-plate capacitance	20–20 pF	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling	Water and forced air	—

SOURCE OPERATING CONDITIONS

SOURCE PDF

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
Amplification factor	22	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	**20000 uS**	—
Heater/filament voltage	**7.5 V**	—
Heater/filament current	**50 A**	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	**6000 V**	—
Maximum plate dissipation	**5000 W**	—
Maximum grid dissipation	**150 W**	—
Maximum cathode/plate current	**3.2 A**	—
Frequency for maximum ratings	**110 MHz**	—
Typical RF plate voltage	**6000 V**	ClassC
Typical AF max-signal plate current	**3 A**	ClassB

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-filament capacitance	**35–35 pF**	—
Output/plate-filament capacitance	**0.9–0.9 pF**	—
Feedback/grid-plate capacitance	**20–20 pF**	—

CONSTRUCTION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling	**Water and forced air**	—

Tube Tinker

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

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