ELECTRONIC TUBE REFERENCE

# 4CW250000V

Power - Tetrode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

**1 SECTION**

CONSTRUCTION

**TETRODE**

High-power transmitting tetrode designed for RF amplification and modulation, with explicit pulse-modulator and regulator service ratings.

## General characteristics

| | | | |
|---|---|---|---|
| **BASE DESIGNATION** | — | **BASE PINS** | — |
| **NOMINAL HEATER** | 12 V / 660 A | **PARALLEL HEATER** | — / — |
| **HEATING** | Direct | **SERIES OPERATION** | Not specified |
| **CATHODE ARRANGEMENT** | Separate cathodes | **SECTION CONSTRUCTION** | Similar |

## Section ratings

| SECTION1 Tetrode | |
|---|---|
| **AMPLIFICATION FACTOR** | 4.5 |
| **MAXIMUM PLATE VOLTAGE** | 40000 V |
| **MAXIMUM SCREEN VOLTAGE** | 2500 V |
| **MAXIMUM PLATE DISSIPATION** | 250000 W |
| **MAXIMUM SCREEN DISSIPATION** | 3500 W |
| **MAXIMUM GRID DISSIPATION** | 1500 W |
| **MAXIMUM CATHODE CURRENT** | 350 A |

*Published absolute maximum ratings promoted from the applicable service tables; pulse-service maxima are used only where explicitly noted in the tube note.*

Ceramic/metal water-cooled power tetrode for 250–500 kW output service, suitable for RF amplification/oscillation, AF modulation, and pulse modulator/regulator applications; VacIon-pump version.

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 · Tetrode

### OTHER

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Heater/Filament Voltage | 12 V | — |
| Heater/Filament Current | 660 A | At 12.0 V nominal |
| Frequency for Maximum Ratings | 50 MHz | — |
| Maximum Plate Voltage | 40000 V | Highest published applicable absolute maximum |
| Maximum Screen Voltage | 2500 V | Highest published applicable absolute maximum |
| Maximum Plate Dissipation | 250000 W | — |
| Maximum Screen Dissipation | 3500 W | — |
| Maximum Grid Dissipation | 1500 W | — |
| Maximum DC Plate Current | 40 A | — |
| Peak Cathode Current | 350 A | Pulse service |
| Pulse Plate Voltage | 40000 V | PulseModulatorOrRegulator |
| Peak Cathode Current | 350 A | PulseModulatorOrRegulator |
| Plate Voltage | 20000 V | ClassAB;RFLinearAmplifier;HighOperatingPoint |
| Screen Voltage | 1800 V | ClassAB;RFLinearAmplifier |
| Plate Output Power | 330000 W | ClassAB;RFLinearAmplifier;HighOperatingPoint |

### CHARACTERISTIC

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Grid-Screen Amplification Factor | 4.5 | — |

### CAPACITANCE

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Input Capacitance | 765 pF | GroundedCathode |

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Output Capacitance | **124 pF** | GroundedCathode |
| Feedback Capacitance | **6 pF** | GroundedCathode |