



## ELECTRONIC TUBE REFERENCE

## 220SG

Voltage - Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA

## 1 SECTION

CONSTRUCTION

## TETRODE

Screen-grid tetrode intended for receiver voltage amplification, detector, oscillator, or general Class-A service as documented by the manufacturer.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 4             |
| NOMINAL HEATER      | 2 V / 200 mA      | PARALLEL HEATER      | — / —         |
| HEATING             | Direct            | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| SECTION 1 Tetrode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |
| PLATE RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 200000 $\Omega$ |
| TRANSCONDUCTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.0016 S        |
| AMPLIFICATION FACTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 320             |
| MAXIMUM PLATE VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 150 V           |
| <p>Cossor 220 S.G. directly heated 2 V 0.2 A screened-grid tetrode for high-frequency amplification, detection and dynatron oscillator/laboratory use. Maximum anode voltage 150 V; normal working anode voltage 120 V; recommended positive screen voltage 60-80 V is a working range, not explicitly absolute maximum. Plate resistance (impedance) 200 k<math>\Omega</math>, amplification factor 320 and mutual conductance 1.6 mA/V (0.0016 S). At <math>V_a</math> 150 V, no grid bias anode current 3.1 mA; at -1.5 V grid approximately 0.7 mA. Interelectrode capacitance about 0.001 pF. Screen maximum and maximum dissipation not supplied.</p> |                 |

Two-volt screened-grid tetrode for H.F. amplification, detection, and oscillator service.



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1936 Cossor Valve Manual

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

## 1936 COSSOR VALVE MANUAL

## Section 1 · Tetrode

## OTHER

## PARAMETER

## PUBLISHED VALUE

## CONDITION / NOTE

Inter-electrode capacitance

**0.001 pF**

Published datasheet value

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