

ELECTRONIC TUBE REFERENCE

SY1301

Specialized - Sensor Tube electronic tube

CONSOLIDATED TECHNICAL DATA  
1 SECTION  
CONSTRUCTION  
SENSOR

Omegatron mass-spectrometer sensing tube for residual-gas analysis. Crossed electric and magnetic fields separate ions by mass-to-charge ratio for vacuum-system composition measurement.

GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 8             |
| NOMINAL HEATER      | 1.15 V / —        | PARALLEL HEATER      | — / —         |
| HEATING             | Direct            | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

SECTION RATINGS

|                                                                                                    |
|----------------------------------------------------------------------------------------------------|
| SECTION1 Sensor                                                                                    |
| No fixed ratings recorded.                                                                         |
| Ratings and characteristics promoted from the supplied Sylvania source where explicitly published. |

Omegatron mass-spectrometer sensing tube for residual-gas analysis, using crossed electric and magnetic fields to separate ions by mass-to-charge ratio.



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1950 Sylvania

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

## 1950 SYLVANIA

## Section 1 · Sensor

| CHARACTERISTIC          |                 |                  |
|-------------------------|-----------------|------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE |
| HeaterOrFilamentVoltage | 1.15 V          | —                |
| ElectronBeamCurrent     | 1 uA            | —                |
| MagneticFluxDensity     | 5000 gauss      | —                |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1965 Sylvania Electronic Tubes Vol3

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

## 1965 SYLVANIA ELECTRONIC TUBES VOL3

## Section 1 · Sensor

| OTHER                                 |                 |                  |
|---------------------------------------|-----------------|------------------|
| PARAMETER                             | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum envelope bake-out temperature | 450 degC        | —                |
| Applied RF frequency                  | 169–3720 kHz    | —                |
| Applied RF amplitude                  | 1.7–3 V         | —                |
| Focus electrode voltage               | -70 V           | —                |
| Trapping voltage                      | -2--0.5 V       | —                |
| Electron collector voltage            | 22.5 V          | —                |
| Magnetic flux density                 | 5000 gauss      | —                |
| Electron beam current                 | 1 uA            | —                |
|                                       |                 |                  |

| PARAMETER                           | PUBLISHED VALUE                | CONDITION / NOTE |
|-------------------------------------|--------------------------------|------------------|
| Emitter voltage range approximately | 1.05–1.25 V ac                 | —                |
| Ion collector current               | 0.000000000001 mA–0.0000001 mA | —                |

## TUBE TINKER

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

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