

ELECTRONIC TUBE REFERENCE

14E6

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS
CONSTRUCTION
DIODE-DIODE-TRIODE

Double-diode low-mu triode combining detector and audio-amplifier functions. The paired diodes handle signal and control-voltage rectification while the relatively low-resistance triode provides useful current-driving capability after detection.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8W	BASE PINS	8
NOMINAL HEATER	12.6 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	8500 Ω
TRANSCONDUCTANCE	0.0019 S
AMPLIFICATION FACTOR	16
MAXIMUM PLATE VOLTAGE	250 V
Promoted from clearly identified printed ratings/characteristics; additional published operating points and capacitances retained in TUBE_SECTION_PARAMETER.	
SECTION2 Diode	
No fixed ratings recorded.	
Promoted from clearly identified printed ratings/characteristics; additional published operating points and capacitances retained in TUBE_SECTION_PARAMETER. The chart identifies the repeated detector-diode section(s) but does not publish separate diode electrical ratings on this row.	

No fixed ratings recorded.

Added approved missing physical diode section row.

14E6 — Duplex-Diode High-Mu Triode

The **14E6** is an indirectly heated multi-unit vacuum tube containing a triode section and two diode units within a single envelope. It is classified as a duplex-diode high-mu triode and is designed for receiving-tube applications, including Class A voltage amplification.

Heater and Physical Specifications

The 14E6 is equipped with an indirectly heated cathode. The heater is designed for operation with the following nominal ratings:

- **Heater Voltage:** 12.6 V
- **Heater Current:** 0.15 A

Physically, the tube is constructed according to the **9-30** outline drawing. It features an **8W** base connection configuration, which utilizes an eight-pin base layout with a central indexing key to ensure correct orientation in its socket.

Electrical Characteristics and Class A Operating Point

The triode section of the 14E6 is rated for a maximum plate voltage of **250 V**. Under typical Class A amplifier operating conditions, the triode section exhibits the following electrical characteristics:

- **Plate Voltage:** 250 V
- **Negative Grid Voltage:** 9.0 V
- **Plate Current:** 9.5 mA
- **Plate Resistance (r_p):** 8,500 Ω
- **Transconductance (g_m):** 1,900 μmhos
- **Amplification Factor (μ):** 16

At this operating point, the tube provides a moderate amplification factor of 16. The relationship between the triode's parameters can be verified mathematically: multiplying the transconductance by the plate resistance ($0.0019 \text{ S} \times 8,500 \Omega$) yields a calculated value of approximately 16.15, which closely aligns with the published amplification factor of 16.

The duplex-diode portion of the tube consists of two independent diode anodes sharing the common cathode structure, suitable for detection or automatic volume control functions, though specific operating parameters for the diode elements are not tabulated.

Technical Summary

The **14E6** is a duplex-diode high-mu triode vacuum tube featuring a 12.6 V, 0.15 A heater, an 8W base, and a 9-30 physical outline. It is designed to operate at a maximum plate voltage of 250 V. In typical Class A amplifier service, the triode section operates with a 9.0 V negative grid bias, drawing 9.5 mA of plate current, and provides an amplification factor of 16 with a plate resistance of 8,500 Ω , and a transconductance of 1,900 μmhos .

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Control-grid voltage	-9 V	ClassA
Plate current	9.5 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	8500 Ω	ClassA
Transconductance	1900 μS	ClassA
Amplification factor	16	ClassA

TUBE TINKER

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and their source documents.

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