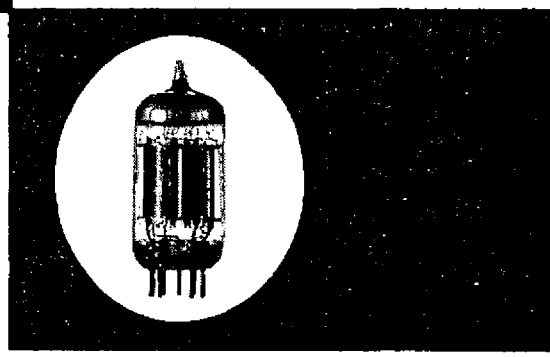
PHILCO
RECEIVING TUBE DATA SHEET
TENTATIVE

12AE7
DISSIMILAR DUO-TRIODE TUBE



GENERAL DESCRIPTION
Jumbo miniature dissimilar duo-triode for hybrid auto radio driver applications.

DESCRIPTION

Type 12AE7 is a jumbo miniature low-mu dissimilar double triode intended for use as a driver tube for the audio output stage of hybrid automobile radios. Both heater and plate are designed for 12 volt operation.

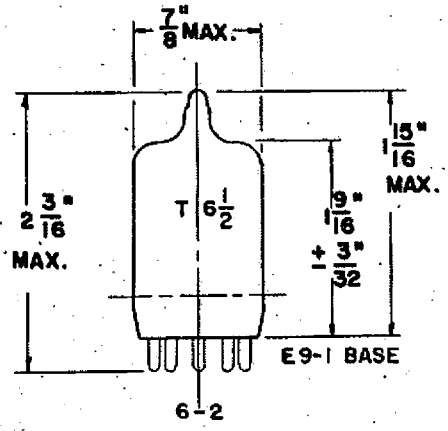
MECHANICAL DATA

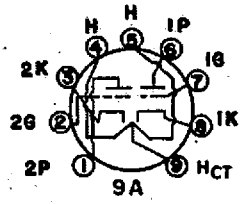
Cathode	Coated Unipotential
Outline Drawing	6-2
Bulb	T6½
Base	E9-1 Small Button 9-pin
Maximum Diameter	7/8 inch
Maximum Overall Length	2 3/16 inches
Maximum Seated Height	1 15/16 inches
Basing	9A

1—#2 Plate
2—#2 Grid
3—#2 Cathode
4—Heater
5—Heater
6—#1 Plate
7—#1 Grid
8—#1 Cathode
9—Heater Center Tap

Mounting Position ..... Any

DIMENSIONAL OUTLINE AND MECHANICAL SPECIFICATIONS





BASING DIAGRAM
Bottom View of Base

ELECTRICAL DATA

Direct Interelectrode Capacitance (without shield)

Grid to Plate (Triode 1)	3.9 μμf
Grid to Plate (Triode 2)	3.4 μμf
Input (Triode 1)	4.7 μμf
Input (Triode 2)	4.2 μμf
Output (Triode 1)	0.75 μμf
Output (Triode 2)	0.85 μμf

Heater Characteristics

Heater Voltage	12.6 volts
Heater Current	0.45 amp (±10%)
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	16.0 volts
Heater Positive with Respect to Cathode	16.0 volts

Maximum Ratings (Design-Center Rating System) (Note 1)

Plate Voltage	16.0 volts
Positive DC Grid Voltage	0 volts
Plate Dissipation	1.0 watt
Grid Circuit Resistance	1.5 megohms

Typical Operating Conditions and Characteristics

Plate Voltage (each triode)	12.6 volts
Grid Leak Resistor	
Triode 1	1.5 megohms
Triode 2	1.0 megohm

(Over)

from JETEC release #2285, Oct. 6, 1958

Plate Current
- Triode 1 ..... 1.9 ma
- Triode 2 ..... 7.5 ma

Transconductance
- Triode 1 ..... 4000 μmhos
- Triode 2 ..... 6500 μmhos

Amplification Factor
- Triode 1 ..... 13.0
- Triode 2 ..... 6.4

Plate Resistance
- Triode 1 ..... 3150 ohms
- Triode 2 ..... 985 ohms

NOTE

1. Ratings apply to each section unless otherwise stated.

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