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7314

File Catalog: Special Purpose Electron Tubes
Section: Receiving Tubes

Bendix Red Bank Type TE-34
(Generic Type 6AG7)

METAL CERAMIC MINIATURE BEAM POWER AMPLIFIER

MECHANICAL DATA

Bulb Temperature	500° max.
Overall Length	2-13/16 inches max.
Seated Height	2-3/32 inches max.
Diameter	3/4 inches max.
Base	Seven-pin miniature
Mounting Position	Any

Pin Connections

Pin	Element
1	Cathode and Grid Number 3
2	Heater
3	Grid Number 2 (Screen)
4	No connection
5	Cathode and Grid Number 3
6	Heater
7	Grid Number 1
Bulb	Plate

DESCRIPTION

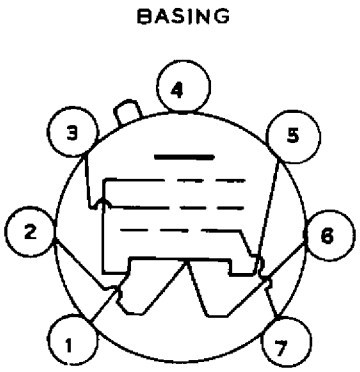
The Bendix 7314 is a beam power amplifier and is one of the Bendix HY-G-500 Line of Receiving Tubes. It is in the miniature tube size and features an external anode, metal-ceramic construction. It is specifically designed to replace type 6AG7 for aircraft, missile and industrial applications where limited space requirements and/or envelope temperatures up to 500° C are encountered.

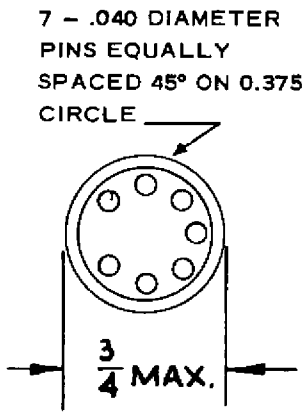
The external anode construction permits operation in which auxiliary cooling may be used, either by immersion in oil or clamping to a suitable heat sink.

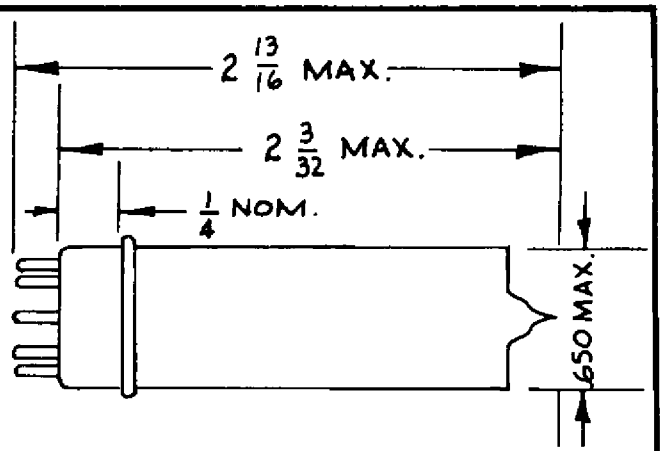
The 7314 is designed primarily for use in the output stage of video amplifiers, being capable of operating at high plate current levels and having high transconductance.

Electrical connections for the other tube elements are by means of base pins in the standard seven-pin miniature configuration and the tube may be operated in any position.

The internal structure employs ceramic element spacers and the much smaller size and mass of the tube elements greatly increase resistance to damage by vibration and shock. A pure alumina heater insulator permits operation at high heater-cathode voltages.







METAL CERAMIC MINIATURE BEAM POWER AMPLIFIER

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Bendix Red Bank Type TE-34

RATINGS

Heater Voltage (AC or DC)	6.3	Volts
Heater Current	0.60	Amperes
Plate Voltage (maximum DC)	300	Volts
Screen Voltage (maximum DC)	300	Volts
Plate Dissipation (Absolute maximum)	10	Watts
Heater - Cathode Voltage (maximum)	± 450	Volts

TYPICAL OPERATION

CLASS A, AMPLIFIER

Plate Voltage	300	Volts
Screen Voltage	150	Volts
Grid Number 1 Voltage	-3.0	Volts
Peak AF Grid Number 1 Voltage	3.0	Volts
Plate Resistance (Approx.)	0.13	Megohm
Transconductance	11000	Micromhos
Zero Signal Plate Current	30	Milliamperes
Maximum Signal Plate Current	30.5	Milliamperes
Zero Signal Screen Current	7.0	Milliamperes
Maximum Signal Screen Current	9.0	Milliamperes
Load Resistance	10,000	Ohms
Total Harmonic Distortion	7.0	Percent
Power Output	3.0	Watts

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