

METAL-CERAMIC MINIATURE HALF-WAVE RECTIFIER

MECHANICAL DATA

Bulb Temperature	500°C max.
Overall Length	2-15/16 inches max.
Seated Height	2-11/16 inches max.
Diameter	3/4 inches max.
Base	Seven-pin miniature
Mounting Position	Any
Cathode Warm-up Time (plate and heater voltages simultaneously)	45 Seconds
Maximum altitude*	60,000 feet

*Derating or cooling may be necessary to meet maximum bulb temperature requirement.

PIN CONNECTIONS

Pin	Element
1	No Connection
2	Heater
3	No Connection
4	Cathode
5	No Connection
6	Heater
7	No Connection
Bulb	Plate

DESCRIPTION

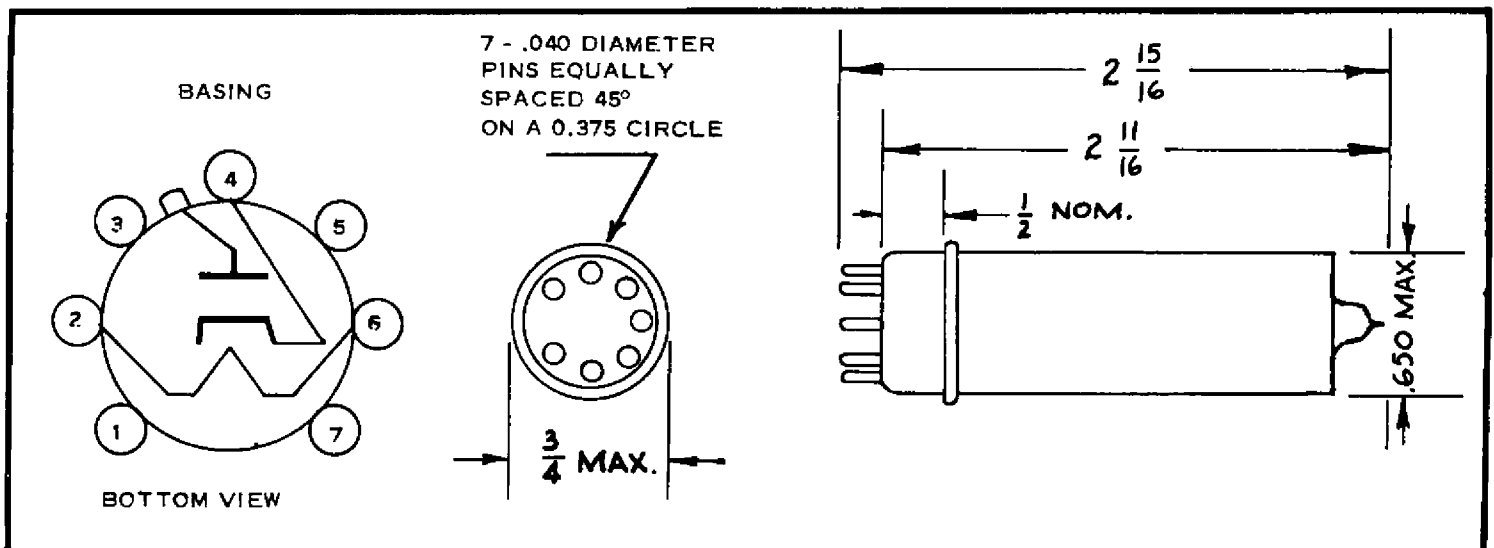
The Bendix 7313 is a half-wave rectifier and is one of the Bendix HY-G-500 line of receiving tubes. It is in the miniature tube size and features an external anode, metal-ceramic construction. It is specifically designed for aircraft, missile and industrial applications where limited space requirements and/or envelope temperatures up to 500° C are encountered.

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

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

Pure alumina element spacers are employed. An indirectly heated unipotential cathode provides low internal tube drop. The much smaller size and lower mass of the tube elements in comparison with equivalent glass rectifier types, greatly increase resistance to damage by vibration and shock.

A pure, alumina heater insulator permits operation at high heater-cathode voltages.





RATINGS

Heater Voltage	6.3 Volts
Heater Current	1.55 Amperes
Peak Inverse Voltage	2800 Volts
Peak Plate Current	1000 Milliamperes
DC Heater-Cathode Potential (max)	500 Volts

TYPICAL OPERATION

Input to Filter

	<u>Capacitor</u>	<u>Choke</u>	
Heater Voltage	6.3	6.3	Volts
Heater Current	1.55	1.55	Amperes
RMS Plate Supply Voltage	700	700	Volts
Input Capacitor	4	--	Microfarads
Input Choke	--	10	Henries
Supply Impedance	100	--	Ohms
Output Current (DC)	140	85	Milliamperes
Output Voltage (full load) (DC)	755	865	Volts
Output Voltage (half load) (DC)	815	875	Volts

THE Bendix CORPORATION

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