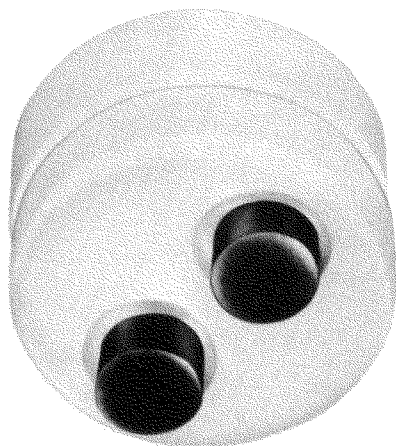




METAL-CERAMIC DIODE



DESCRIPTION AND RATING

The 7841 is a cathode-type diode of ceramic-and-metal planar construction intended for detector and low-current rectifier applications.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential
 Heater Characteristics and Ratings
 Heater Voltage, AC or DC*.....6.3 $\pm$ 0.3 Volts
 Heater Current†.....0.215 Amperes
 Direct Interelectrode Capacitances§
 Plate to Cathode: (p to k).....1.1 pf
 Heater to Cathode: (h to k).....1.2 pf

MECHANICAL

Mounting Position—Any
 See outline drawing on page 2 for dimensions and electrical connections.

MAXIMUM RATINGS

ABSOLUTE MAXIMUM VALUES

Peak Inverse Plate Voltage.....350 Volts
 Steady-State Peak Plate Current.....22 Milliamperes
 DC Output Current.....55 Milliamperes
 Heater-Cathode Voltage
 Heater Positive with Respect to

Cathode.....50 Volts
 Heater Negative with Respect to
 Cathode.....50 Volts
 Envelope Temperature at Hottest
 Point**.....250 C

Absolute-Maximum ratings are limiting values of operating and environmental conditions applicable to any electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making no allowance for equipment variations, environmental variations, and the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration and of

all other electron devices in the equipment.

The equipment manufacturer should design so that initially and throughout life no absolute-maximum value for the intended service is exceeded with any tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of the tube under consideration and of all other electron devices in the equipment.

AVERAGE CHARACTERISTICS

Tube Voltage Drop
 Ib = 5.0 Milliamperes DC.....2.6 Volts

FOOTNOTES

* The equipment designer should design the equipment so that the heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.

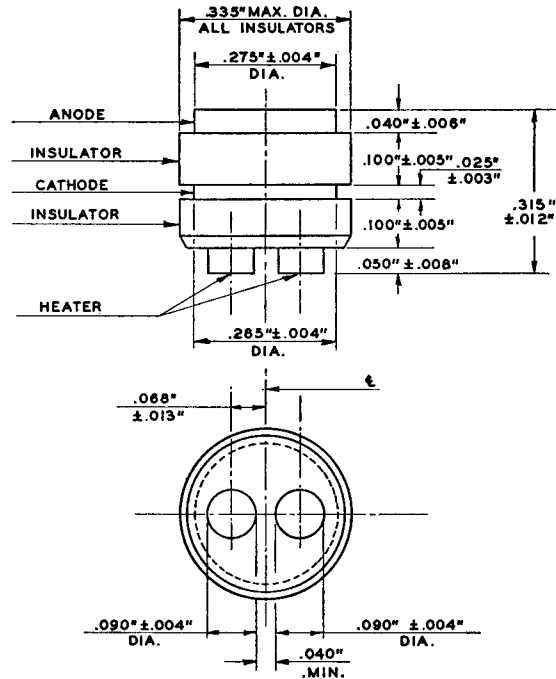
† Heater current of a bogey tube at Ef = 6.3 volts.

§ Measured using a grounded adapter that provides shielding between external terminals of tube.

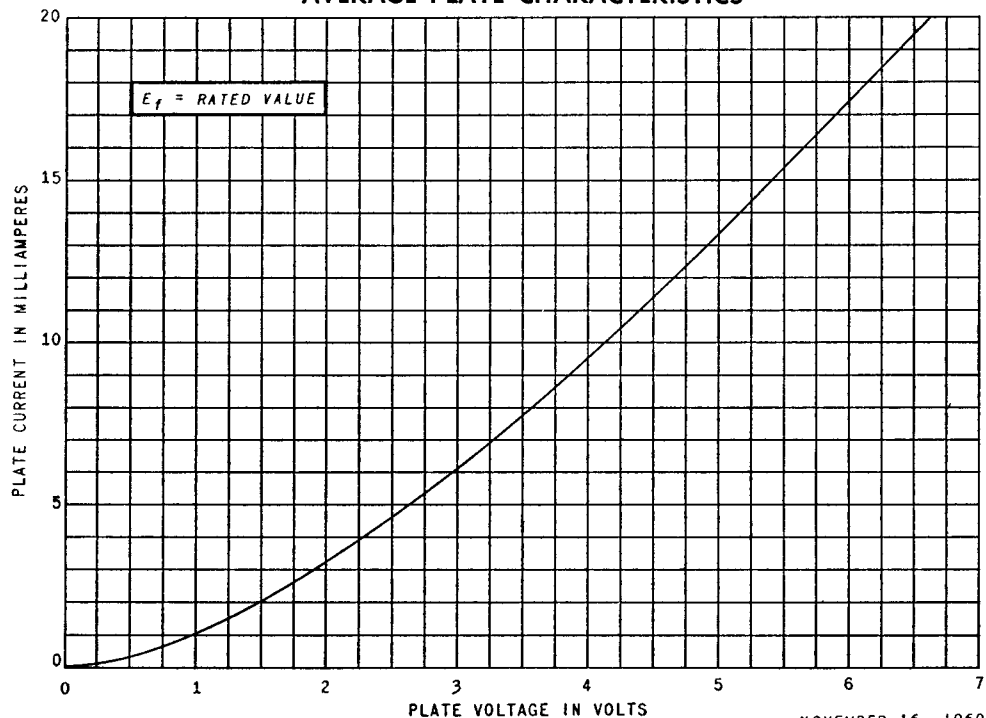
**For applications where long life is a primary consideration, it is recommended that the envelope temperature be maintained below 175 C.

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or

elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.



AVERAGE PLATE CHARACTERISTICS



K-55611-TD129-1

NOVEMBER 16, 1960

RECEIVING TUBE DEPARTMENT

GENERAL  **ELECTRIC**

Owensboro, Kentucky