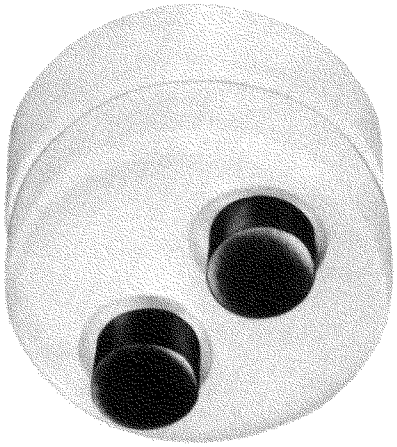
7841

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 ± 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.

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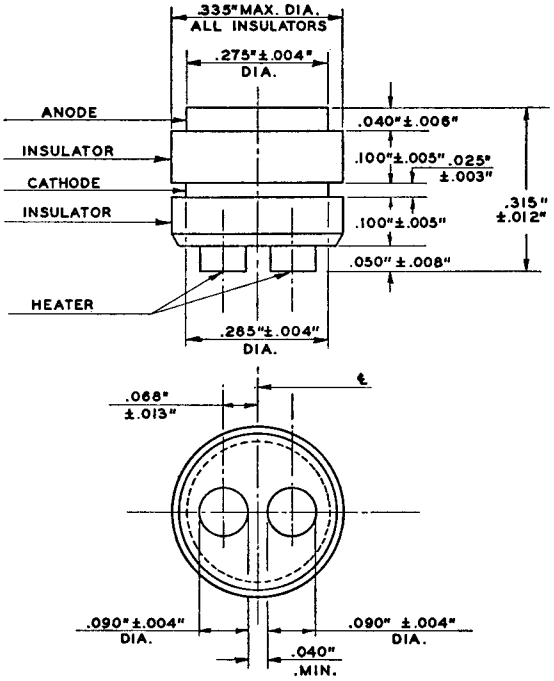
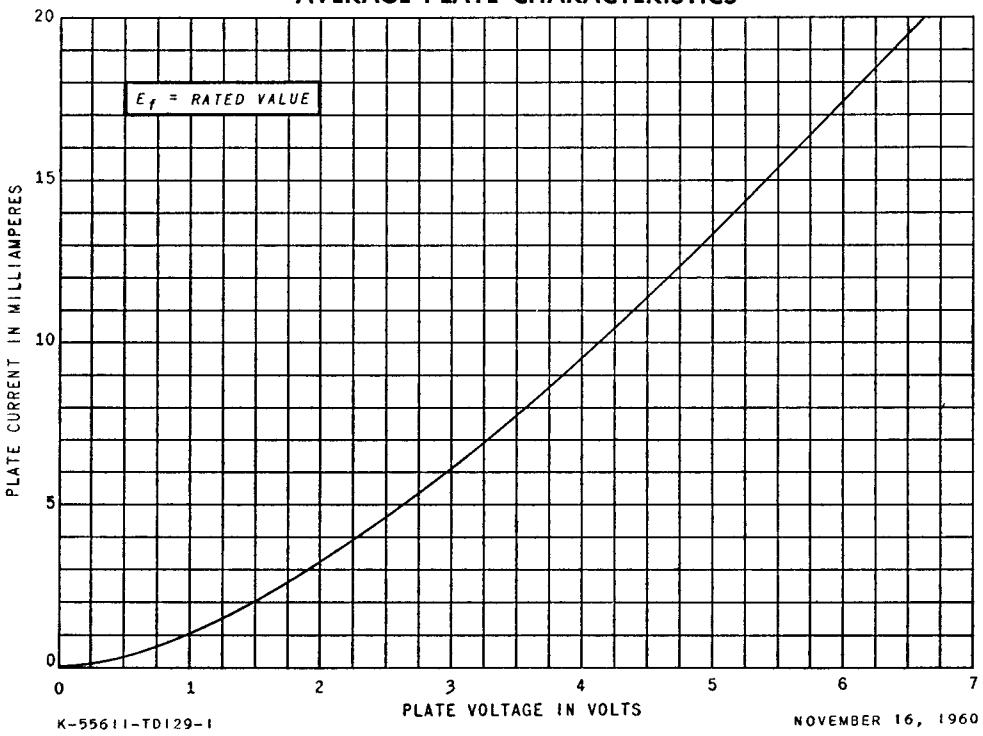


AVERAGE PLATE CHARACTERISTICS



RECEIVING TUBE DEPARTMENT

GENERAL ELECTRIC

Owensboro, Kentucky