The CK5785 is a filament type diode rectifier of subminiature construction designed for use at comparatively high voltages and low currents. It is particularly suitable for use in battery operated power supplies for portable Geiger-Mueller counters. The low filament power and small tube size make the tube desirable where battery and space economy are important. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard subminiature sockets may be used by cutting the leads to a suitable length.

**MECHANICAL DATA**

- **ENVELOPE**: T-2X3 Glass
- **BASE**: None (0.016" tinned flexible leads, Length: 1.5" min., Spacing: Leads 1-6 0.240" center-to-center; Leads 6-7 0.048" center-to-center.)
- **TERMINAL CONNECTIONS**: (Red Dot is adjacent to lead 1)
  - Lead 1 Plate
  - Lead 6 Filament, negative
  - Lead 7 Filament, positive
- **MOUNTING POSITION**: Any

**ELECTRICAL DATA**

- **RATINGS - ABSOLUTE MAXIMUM VALUES**:
  - Filament Voltage (dc): 125 ± 20% volts
  - Peak Inverse Plate Voltage: 4000 volts
  - Average Plate Current: 100 μA
  - Peak Plate Current (steady state): 520 μA
  - Maximum Plate Supply Voltage (Peak): 2300 volts
  - Minimum Plate Supply Impedance: 1 megohm
  - Peak Plate Current (surge): 2.5 ma.

- **CHARACTERISTICS AND TYPICAL OPERATION - HALF-WAVE RECTIFIER**:
  - Filament Voltage (dc): 1.25 volts
  - Filament Current: 15 ma.
  - Plate Supply Voltage (RMS Sinusoidal Wave Form): 1625 volts
  - Plate Supply Impedance: 1.02 megohms
  - Load Current (dc): 80 μA
  - Load Condenser: .01 μf
  - Load Resistor: 20 megohms
  - DC Output Voltage: 1600 volts
  - Tube Drop (approx.) at 500 μA: 7.5 volts
    - 250 μA: 5.5 volts
    - 80 μA: 3.5 volts

*To avoid damage to the equipment or tube, it is recommended that the plate supply impedance be adjusted to limit forward and surge current to the stated value. Minimum resistance is 1 megohm minus the effective equivalent transformer impedance, but never less than 980,000 ohms dc resistance.

▲ 60 cycle operation.