The CK6763 is a ruggedized, instant starting, cold cathode, gas-filled, half-wave rectifier of miniature construction suitable for high voltage, low current power supplies up to 12 mA dc output. Several tubes can be operated in cascode to produce very high voltages. The CK6763 is designed for use in high vibration environmental conditions such as found in mobile and aircraft equipments.

**MECHANICAL DATA**

**ENVELOPE:** T-5½ Glass

**BASE:** Miniature Button 7-Pin

**TERMINAL CONNECTIONS:**

- Pin 1 Cathode
- Pin 2 Cathode
- Pin 3 Cathode
- Pin 4 Cathode
- Pin 5 Cathode
- Pin 6 Cathode
- Pin 7 Cathode
- Top Lead Anode

**MOUNTING POSITION:** Any

**ELECTRICAL DATA**

**RATINGS - ABSOLUTE MAXIMUM VALUES:**

- Peak Inverse Voltage: 2800 volts
- Peak Cathode Current (Steady State) *: 100 mA
- Peak Cathode Current (Surge) *: 300 mA
- Average Cathode Current (dc): 12 mA dc
- Maximum Anode Supply Voltage (RMS): 1200 volts
- Minimum Anode Supply Voltage (RMS): 500 volts
- Minimum Surge Limiting Impedance *: 6000 ohms
- Ambient Temperature Range: -55 to +90 °C

**CHARACTERISTICS AND TYPICAL OPERATION - HALF-WAVE RECTIFIER:**

- Anode Supply Voltage (RMS): 1200 volts
- Minimum Anode Supply Impedance: 6000 ohms
- Load Current (dc): 12 mA dc
- Approximate Anode to Cathode Drop: 85 volts

* To avoid damage to the equipment or tube, it is recommended that the anode supply impedance be adjusted to limit forward currents and intermittent reverse peak currents to stated values. Typical resistance is 6000 ohms minus the effective equivalent transformer loss, but never less than 2000 ohms dc resistance.

For voltage multiplier circuits, a separate limiting resistor should be connected in series with the anode or cathode of each tube. In the event of a reverse arc, the absence of a surge limiting resistor causes all of the energy of the filter condenser to be dissipated in the tube.

**VOLTAGE DOUBLER HIGH VOLTAGE POWER SUPPLY**

**TYPICAL CIRCUIT FOR AC LINE OR BATTERY OPERATION**

Rs = Surge Resistor. Adjust to keep Peak Cathode Current (steady state) and Peak Cathode Current (surge) within ratings of 100 mA and 300 mA, respectively. Rs should not be less than 2000 ohms in voltage doubler circuits regardless of transformer characteristics.

C1 = 1.0 μF (Typical for 60 cycle operation).