



Excellence in Electronics

TYPE CK5517

The CK5517 is an instant starting, cold cathode, gas-filled, half-wave rectifier of miniature construction, suitable for high voltage low current power supplies up to 12 ma. output. Several tubes can be operated in cascade to produce very high voltages. The tube features small size, and a starter electrode which enables it to fire at reduced ignition voltage. The CK5517 should be used as a replacement for the former type CK1013 in equipment having load currents from 3 to 12 ma. For equipment having average load currents less than 3 ma., such as electronic photo-flash power supplies, the type CK6174/CK1027 should be used as a replacement for the former type CK1013.

MECHANICAL DATA

- ENVELOPE: T-5 1/2 Glass
BASE: Miniature Button 7-Pin
TOP CAP: Skirted Miniature
TERMINAL CONNECTIONS:
Pin 1 Cathode
Pin 2 Cathode
Pin 3 No Connection
Pin 4 Starter Electrode
MOUNTING POSITION: Any

- Pin 5 No Connection
Pin 6 Cathode
Pin 7 Cathode
Top Cap Anode

ELECTRICAL DATA

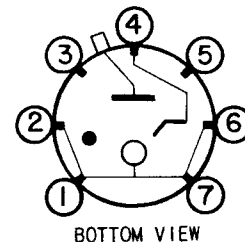
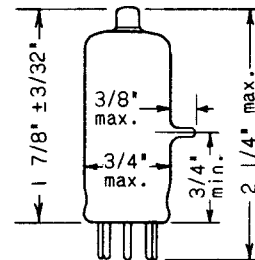
RATINGS - ABSOLUTE MAXIMUM VALUES:

Table with 2 columns: Parameter and Value. Includes Peak Inverse Voltage (2800 volts), Peak Cathode Current (100 ma), Average Cathode Current (12 ma), Maximum Anode Supply Voltage (1700 volts), etc.

CHARACTERISTICS AND TYPICAL OPERATION - HALF-WAVE RECTIFIER 60V SINUSOIDAL OPERATION:

Table with 2 columns: Parameter and Value. Includes Anode Supply Voltage (1200 volts), Anode Supply Impedance (7500 ohms), Starter Electrode Limiting Resistance (10 meg), etc.

- The socket terminals for pins 3 and 5 cannot be used as tie point terminal lugs and may not be connected to any other point in the circuit except to the cathode.
♦ 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.
▲ With starter electrode connected to anode through 10 megohms of resistance.
■ With the starter electrode connected to operate as an anode on the forward half of the cycle, the starter cathode current rating is the only limitation on the starter electrode current.



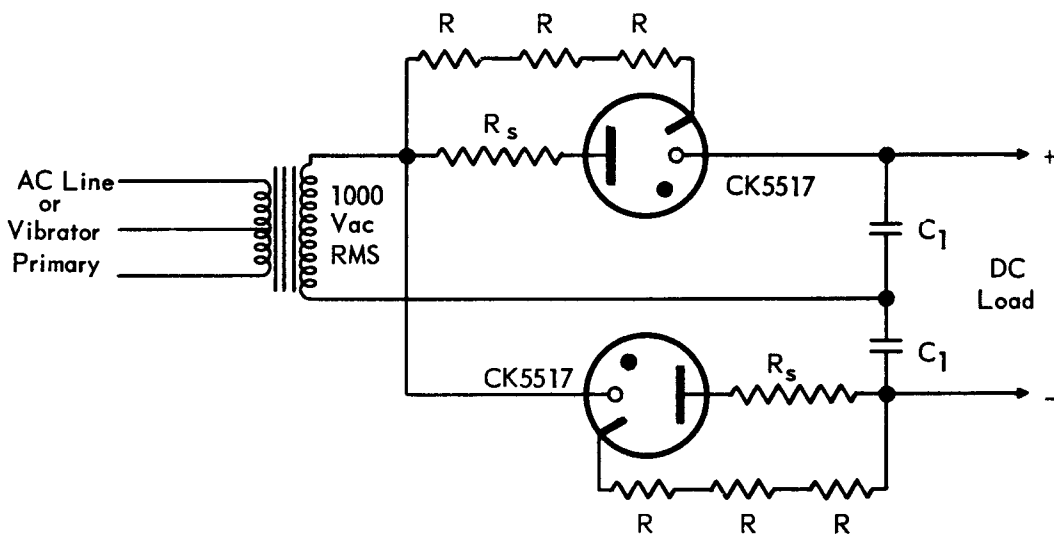
BOTTOM VIEW

5BU



COLD CATHODE HALF-WAVE RECTIFIER

TYPICAL VOLTAGE DOUBLER CIRCUIT FOR COLD CATHODE RECTIFIER

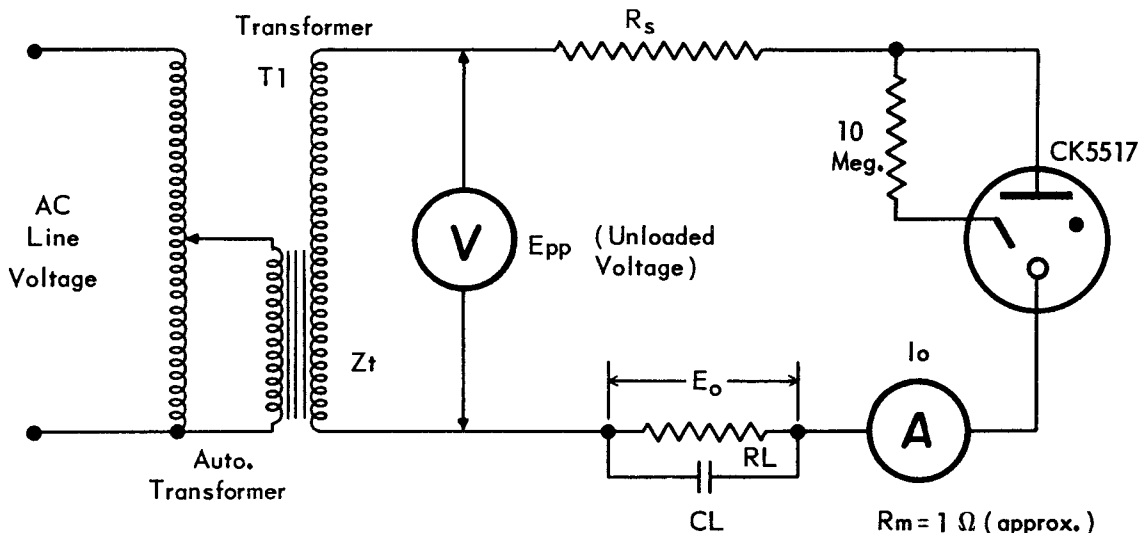


R_s = Surge Resistor. Adjust to keep Peak Cathode Current (steady state) and Peak Cathode Current (surge) within ratings of 100 ma. and 300 ma., respectively. R_s should not be less than 2000 ohms in voltage doubler circuits regardless of transformer characteristics.

R = 3.3 meg., 1/2 watt, 350 Vdc.

C_1 = 1.0 μ f, 1500 V (Typical for 60 cycle operation.)

TYPICAL HALF-WAVE CIRCUIT FOR COLD CATHODE RECTIFIER



RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS



COLD CATHODE HALF-WAVE RECTIFIER

