



Excellence in Electronics

TYPE CK5755

The CK5755 is a heater-cathode type double-triode of miniature construction. This type has several unique features of construction and test specification controls which make it suitable for applications, such as precision DC amplifiers, computers, and regulated power supplies which require very stable characteristics.

MECHANICAL DATA

ENVELOPE: T-6 1/2 Glass

BASE: Miniature Button 9-Pin

TERMINAL CONNECTIONS:

- Pin 1 Plate, Unit 2
Pin 2 Cathode, Unit 2
Pin 3 Grid, Unit 2
Pin 4 Heater
Pin 5 Heater
Pin 6 Grid, Unit 1
Pin 7 Cathode, Unit 1
Pin 8 Plate, Unit 1
Pin 9 Heater Center-Tap

MOUNTING POSITION: Any

ELECTRICAL DATA

DIRECT INTERELECTRODE CAPACITANCES: (pFds.)

Table with 3 columns: Connection, With Shield, Without Shield. Rows include Grid, Unit 1 to Plate, Unit 1; Input; Output; Plate, Unit 1 to Plate, Unit 2; Grid, Unit 1 to Plate, Unit 2; Grid, Unit 2 to Plate, Unit 1.

RATINGS-ABSOLUTE MAXIMUM VALUES: (Note 1)▲

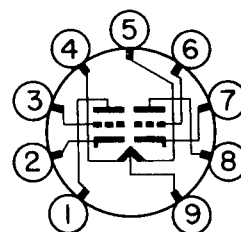
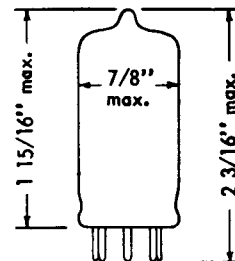
Table with 2 columns: Parameter, Value. Rows include Heater Voltage, Plate Voltage, Plate Dissipation, Heater-Cathode Voltage.

TYPICAL CHARACTERISTICS: ▲

Table with 3 columns: Parameter, Value (Shielded), Value (Unshielded). Rows include Heater Supply Voltage, Heater Current, Plate Voltage, Grid Voltage, Plate Current, Transconductance, Amplification Factor, Plate Resistance, Grid Current, Initial Balance.

TYPICAL OPERATING CONDITIONS-DC AMPLIFIER:

Table with 2 columns: Parameter, Value. Rows include Heater Supply Voltage, Heater Ballast Resistor, Plate Supply Voltage, Cathode Bias Resistor, Load Resistance, Stabilization, Drift, Electrical Stability, Mechanical Stability.



BOTTOM VIEW

93

Tentative Data

RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS



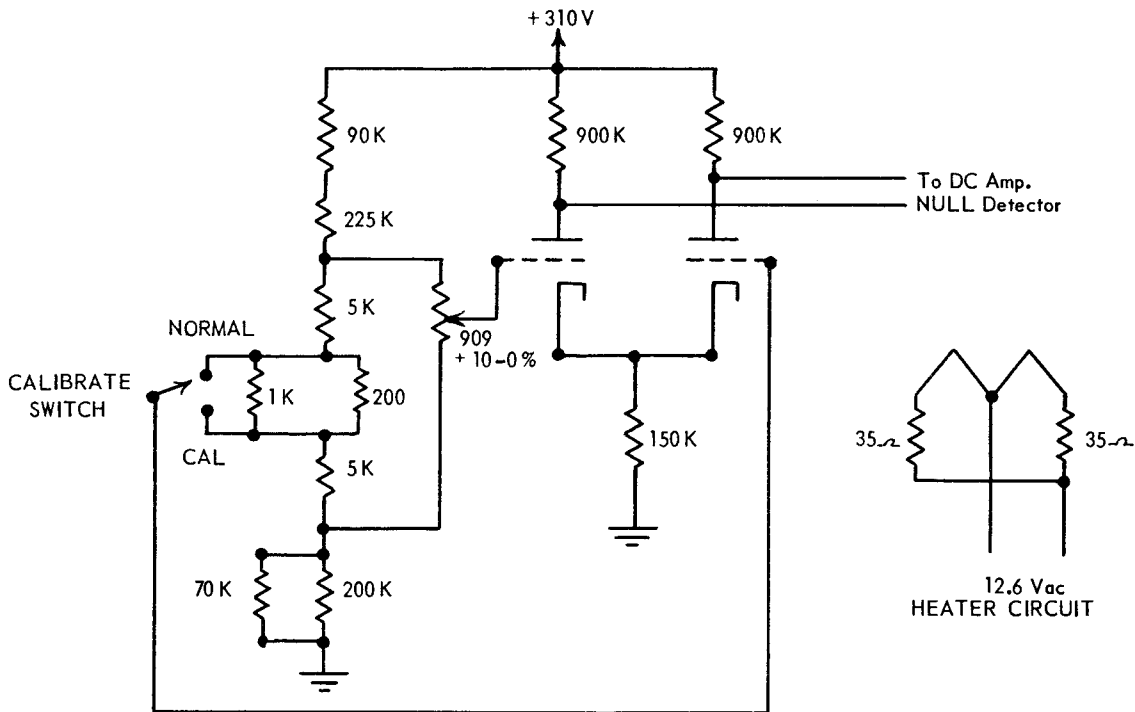
DOUBLE TRIODE

\* External Shield #315 connected to cathode of unit under test.

▲ Values are for each unit unless otherwise specified.

NOTES :

- Note 1 : Limitations beyond which normal tube performance and tube life may be impaired. Quality level assured by sampling tests (Design Tests) on each production lot.
- Note 2 : All tubes are operated at least 150 hours in a typical operating circuit before testing.
- Note 3 : At the start of the test, an initial adjustment of grid bias shall be made to balance the plate currents in the two units within  $1 \mu\text{Adc}$ . Drift,  $\Delta E_c$  is defined as a steady state change in grid bias that is required to return to the initial plate current conditions after operation for a specified period of time. No adjustment is allowed between observations. The test is made on at least a 15% sampling basis in the test circuit shown as Figure 1. The test period is a minimum of 16 hours; observations may be made at the start and finish of the final 7 hours period. The limit for  $\Delta E_c$  is 5 millivolts, DC, and applies to the arithmetic average of the sample disregarding the direction of change.
- Note 4 : Upon completion of the drift test  $\Delta E_c$  is observed for an operating period of 5 minutes with the tube in the same circuit. A  $\Delta E_c$  of 2 millivolts is permitted. The limit applies to individual tubes and any failure in the samples shall be cause for rejection of the lot.
- Note 5 : Upon completion of the electrical stability test each tube in the sample is tapped once in each of six directions with a shock between 400 and 600 G's of approximately one millisecond duration.  $\Delta E_c$  when measured in the circuit shown, shall be interpreted as the maximum variation from the initial setting that takes place following each of the six shocks. The 25 millivolt limit applies to the arithmetic average of the sample, disregarding the direction of the change.
- Note 6 : With  $E_{1b} = E_{2b} = 110 \text{ Vdc}$  and with  $I_{1b} = I_{2b} = 0.150 \text{ mAdc}$ ,  $E_{1c} - E_{2c}$  for required  $I_b$  must not exceed  $\pm 0.3 \text{ Vdc}$ .



Max. Tolerance on Resistances to be 1%.

FIGURE 1

RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS



DOUBLE TRIODE

