

*Excellence in Electronics***CK3BCP7/  
QK767****GENERAL DESCRIPTION**

The CK3BCP7/QK767 is a cathode ray tube which is used as a simulator for the CK7571. This tube may be utilized for visual inspection of the input signal and for determining the focus and deflection capabilities of the circuitry.

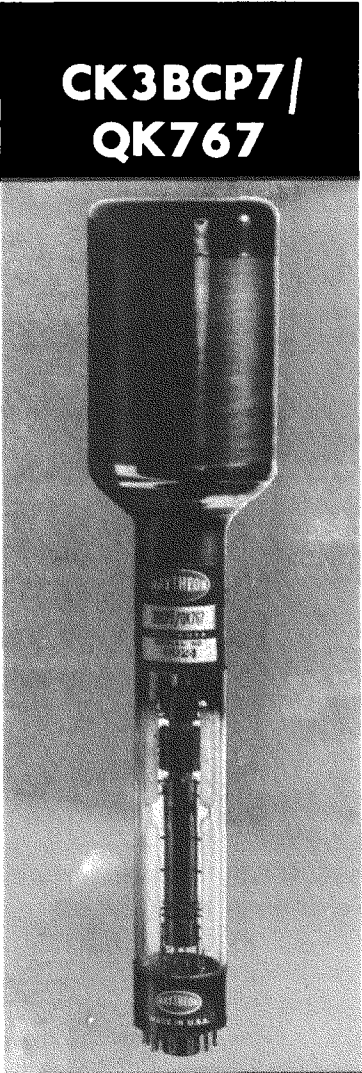
**GENERAL CHARACTERISTICS****ELECTRICAL**

|                                                 |                 |
|-------------------------------------------------|-----------------|
| Phosphor . . . . .                              | P7              |
| Heater                                          |                 |
| Heater Voltage . . . . .                        | 6.3 V $\pm$ 10% |
| Heater Current . . . . .                        | 0.6 A           |
| Maximum Ratings                                 |                 |
| Anode Voltage . . . . .                         | 6000 Vdc        |
| Grid #1 (control electrode) Voltage             |                 |
| Negative Bias . . . . .                         | -125 Vdc        |
| Positive Bias . . . . .                         | 0 Vdc           |
| Positive Peak Value . . . . .                   | +2 V            |
| Grid #2 . . . . .                               | 1000 Vdc        |
| Focus Anode Voltage . . . . .                   | 4000 V          |
| Typical Operating Conditions                    |                 |
| (All Voltages Measured With Respect to Cathode) |                 |
| Cathode . . . . .                               | 0V              |
| G1 (Control Grid) Cutoff . . . . .              | -30V            |
| G2 . . . . .                                    | 400V            |
| Anode . . . . .                                 | 3500V           |
| Focus Anode                                     |                 |
| Electrostatic . . . . .                         | 400V            |
| Magnetic . . . . .                              | 3500V           |

**MECHANICAL CHARACTERISTICS**

## Terminal Connections:

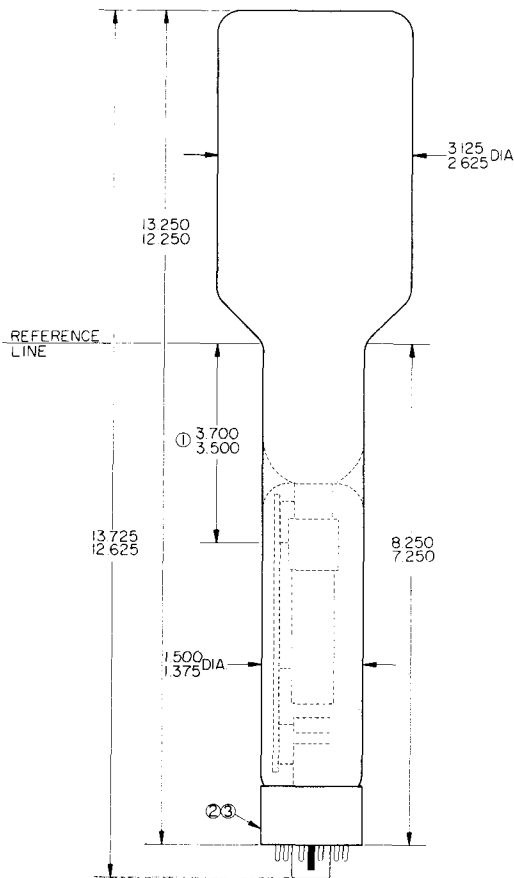
|                                       |                          |
|---------------------------------------|--------------------------|
| Pin 1 Heater . . . . .                | Pin 7 no connection      |
| Pin 2 Grid #1 . . . . .               | Pin 8 no connection      |
| Pin 3 no connection . . . . .         | Pin 9 no connection      |
| Pin 4 Anode 2 (focus anode) . . . . . | Pin 10 Grid #2           |
| Pin 5 no connection . . . . .         | Pin 11 Cathode           |
| Pin 6 Anode 1 . . . . .               | Pin 12 Heater            |
| Focusing . . . . .                    | Magnetic & Electrostatic |
| Deflection . . . . .                  | Magnetic                 |
| Maximum Deflection Angle . . . . .    | 30°                      |
| Over-all Length . . . . .             | 13-3/16"                 |
| Bulb Diameter . . . . .               | 3" Nominal               |
| Neck Diameter . . . . .               | 1-1/2" Maximum           |
| Screen Diameter . . . . .             | 2" (approx.)             |
| Base . . . . .                        | Small Shell Duodecal     |
| Mounting Position . . . . .           | Any                      |



STORAGE  
TUBE  
SIMULATOR



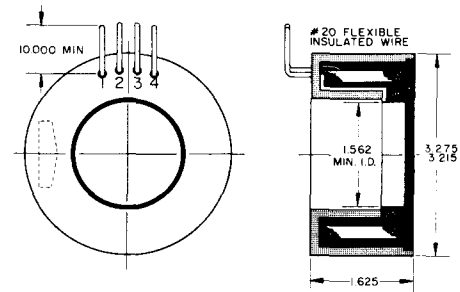
## STORAGE TUBE SIMULATOR



## NOTES

- 1) LOCATION OF DEFLECTION YOKE AND THE GAP OF THE FOCUSING COIL MUST BE WITHIN THIS SPACE
- 2) SOCKET FOR THIS BASE SHOULD NOT BE RIGIDLY MOUNTED, IT SHOULD HAVE FLEXIBLE LEADS AND BE ALLOWED TO MOVE FREELY. BOTTOM CIRCUMFERENCE OF BASE SHELL WILL FALL WITHIN A CIRCLE CONCENTRIC WITH CONE AXIS, AND HAVING A DIAMETER OF 2.000
- 3) B12-43 12 PIN BASE

## BM-411 FOCUS COIL



## LEADS

#1 - S1

#2 - F1

#3 - S2

#4 - F2

## TICKLER COIL

RESISTANCE - 35 TO 50 OHMS (AT 20°C)

MAX. CURRENT - 30 mA RMS

VOLTAGE RATING - 250 V.

INDUCTANCE - 45 MILLIHENRIES APPROX.

## FOCUS COIL

RESISTANCE - 6500 TO 9000 OHMS (AT 20°C)

MAX. CURRENT - 25 mAdc.

VOLTAGE RATING - 250 V.

## NOTES:

- 1) - FOR USE WITH RECORDING STORAGE TUBES AND SIMULATORS
- 2) - TICKLER COIL IS PROVIDED TO PERMIT COMPENSATING FOR IMPROPER FOCUS AT THE EDGES OF A PATTERN CAUSED BY THE VARIATION IN DISTANCE FROM THE CENTER OF DEFLECTION TO a) THE CENTER OF A STORAGE AREA OF A STORAGE TUBE, AND b) THE PERIPHERY OF A STORAGE AREA. THIS TICKLER COIL USEFUL ONLY FOR SLOW SCANNING SPEEDS.
- 3) - WHEN NOT REQUIRED, THE TICKLER COIL MAY BE LEFT UNCONNECTED.
- 4) - SHELL MATERIAL - ANNEALED SWEDISH IRON OR EQUIVALENT.

INDUSTRIAL TUBE DIVISION

RAYTHEON COMPANY

55 CHAPEL ST., NEWTON 58, MASS.