

|              |                                   |
|--------------|-----------------------------------|
| <b>1D5GP</b> | Refer to chart at end of section. |
| <b>1D5GT</b> |                                   |
| <b>1D7G</b>  | Refer to chart at end of section. |
| <b>1D8GT</b> | Refer to chart at end of section. |
| <b>1DN5</b>  | Refer to chart at end of section. |
| <b>1E5GP</b> | Refer to chart at end of section. |
| <b>1E7GT</b> | Refer to chart at end of section. |
| <b>1E8</b>   | Refer to chart at end of section. |
| <b>1F4</b>   | Refer to chart at end of section. |
| <b>1F5G</b>  | Refer to chart at end of section. |
| <b>1F6</b>   | Refer to chart at end of section. |
| <b>1F7G</b>  | Refer to chart at end of section. |

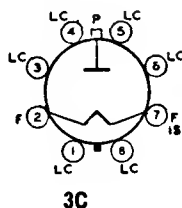
## 1G3GT/ 1B3GT

### HALF-WAVE VACUUM RECTIFIER

Glass octal type used as a rectifier in high-voltage pulse circuits of color and black-and-white television receivers or as a rectifier in a high-voltage rf-operated power supply.

|                                              |       |        |
|----------------------------------------------|-------|--------|
| Filament Voltage (ac/dc) .....               | 1.25* | volts  |
| Filament Current .....                       | 0.2   | ampere |
| Direct Interelectrode Capacitance (Approx.): |       |        |
| Plate to Filament and Internal Shield .....  | 1.3   | pF     |

\* Under no circumstances should the filament voltage be less than 1.05 volts or greater than 1.45 volts.



| <b>Pulsed Rectifier</b>                           |        |       |
|---------------------------------------------------|--------|-------|
| For operation in a 525-line, 30-frame system      |        |       |
| <b>MAXIMUM RATINGS (Design-Maximum Values)</b>    |        |       |
| Peak Inverse Plate Voltage# .....                 | 26000* | volts |
| Peak Plate Current .....                          | 50     | mA    |
| Average Plate Current .....                       | 0.5    | mA    |
| <b>CHARACTERISTICS, Instantaneous Value</b>       |        |       |
| Tube Voltage Drop for plate current of 7 mA ..... | 100    | volts |

| <b>Radio-Frequency Rectifier</b>               |            |       |
|------------------------------------------------|------------|-------|
| <b>MAXIMUM RATINGS (Design-Maximum Values)</b> |            |       |
| Peak Inverse Plate Voltage .....               | 33000      | volts |
| Peak Plate Current .....                       | 35         | mA    |
| Average Plate Current .....                    | 1.1        | mA    |
| Frequency Range of Supply Voltage .....        | 1.5 to 100 | kHz   |

# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

\* The dc component must not exceed 22000 volts.

### Installation and Application

Type 1G3GT/1B3GT requires an octal socket. Plate connection is cap at top of bulb. Socket terminals 1, 3, 4, 5, 6, and 8 may be connected to socket terminal 7 or to a corona shield which is connected to socket terminal 7. Socket terminals 4 and 6 may be used as tie points for components at or near filament potential. This type may be supplied with pins 1, 4, and/or 6 omitted. Outlines section, 14B.

The high voltages at which the 1G3GT/1B3GT is operated are very dangerous. Great care should be taken during the adjustment of circuits. The tube and its associated apparatus, especially all parts which may be at high potential with respect to ground, should be housed in a protective enclosure. The protective housing should be designed with interlocks so that personnel cannot possibly come in contact with any high-potential point in the electrical system. The interlock devices should function to break the primary circuit of the high-voltage supply when any gate or door on the protective housing is opened, and should prevent the closing of this primary circuit until the door is locked again.

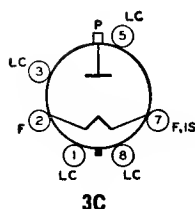
It should be noted that high voltages may appear at normally low-potential points in the circuit as a result of capacitor breakdown or incorrect circuit connections. Therefore, before any part of the circuit is touched, the power-supply switch should be turned off and both terminals of any capacitor should be grounded.

Operation of the 1G3GT/1B3GT with a plate voltage above approximately 16000 volts (absolute value) results in the production of X-rays which can constitute a health hazard on prolonged exposure at close range unless the tube is adequately shielded. Relatively simple shielding should prove adequate, but the need for this precaution should be considered.

|                                   |              |
|-----------------------------------|--------------|
| Refer to chart at end of section. | <b>1G4GT</b> |
| Refer to chart at end of section. | <b>1G5G</b>  |
| Refer to chart at end of section. | <b>1G6GT</b> |
| Refer to chart at end of section. | <b>1H4G</b>  |
| Refer to chart at end of section. | <b>1H5GT</b> |
| Refer to chart at end of section. | <b>1H6G</b>  |
| Refer to chart at end of section. | <b>1J3</b>   |
| Refer to chart at end of section. | <b>1J5G</b>  |
| Refer to chart at end of section. | <b>1J6G</b>  |
|                                   | <b>1J6GT</b> |
| Refer to chart at end of section. | <b>1K3</b>   |

### HALF-WAVE VACUUM RECTIFIER

## 1K3/1J3



Glass octal type used as a rectifier in high-voltage pulse circuits of black-and-white television receivers. Plate connection is cap at top of bulb. Socket terminals 1, 3, 4, 5, 6, and 8 may be connected to socket terminal 7 or to a corona shield which is connected to socket terminal 7. Socket terminals 4 and 6 may be used as tie points for components at or near filament potential.

Outlines section, 14B; requires octal socket. For high-voltage and X-ray safety considerations, refer to type 1G3GT/1B3GT.

|                                              |      |        |
|----------------------------------------------|------|--------|
| Filament Voltage (ac/dc)                     | 1.25 | volts  |
| Filament Current                             | 0.2  | ampere |
| Direct Interelectrode Capacitance (Approx.): |      |        |
| Plate to Filament and Internal Shield        | 1.6  | pF     |

\* Under no circumstances should the filament voltage be less than 1.05 volts or greater than 1.45 volts.