



CIK

CIK/6014

XENON THYRATRON

NEGATIVE-CONTROL TRIODE TYPE

GENERAL DATA

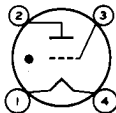
Electrical:

| | Min. | Av. | Max. | | |
|--|------|-----|------|----------------|---------------------------|
| Filament, Coated: | | | | | |
| Voltage | 2.4 | 2.5 | 2.6 | ac or dc volts | |
| Current at 2.5 volts. | 5.5 | 6.3 | 7.1 | amp | |
| Minimum heating time prior to tube conduction | | | | 25 | sec |
| Direct Interelectrode Capacitances (Approx.): | | | | | |
| Grid to anode | | | | 1 | μf |
| Grid to cathode | | | | 10 | μf |
| Maximum Deionization Time | | | | 500 | μsec |
| Maximum Critical Grid Current | | | | 5 | μamp |
| Anode Voltage Drop: | | | | | |
| Average, at beginning of life | | | | 8 | volts |
| Maximum, at end of life | | | | 14 | volts |
| Maximum Commutation Factor, averaged over first 500 volts of inverse anode voltage rise. | | | | 0.15 | $\text{va}/\mu\text{s}^2$ |
| Grid Control Ratio (Approx.): | | | | | |
| For conditions: 10000-ohm grid resistor, circuit returns to filament transformer center-tap, dc anode voltage, and dc grid voltage | | | | 230 | |

Mechanical:

| | |
|---|---|
| Mounting Position | Any |
| Maximum Overall Length. | 4-1/4" |
| Maximum Diameter. | 1-9/16" |
| Weight (Approx.). | 3 oz |
| Bulb. | T-12 |
| Base. | Medium-Metal-Shell Small 4-Pin with Bayonet (JETEC No. A4-89) |
| Basing Designation for BOTTOM VIEW. | 4D |

Pin 1 - Filament



Pin 3 - Grid

Pin 2 - Anode

Pin 4 - Filament

GRID-CONTROLLED RECTIFIER SERVICE

Maximum Ratings, Absolute Values:

PEAK ANODE VOLTAGE:

| | |
|-------------------|-----------------|
| Forward | 1000 max. volts |
| Inverse | 1250 max. volts |

GRID VOLTAGE:

| | |
|---------------------------------------|-----------------|
| Peak, before tube conduction. | -100 max. volts |
|---------------------------------------|-----------------|

Defined as the product of the rate of current decay in amperes per microsecond just before conduction ceases and the rate of inverse voltage rise in volts per microsecond following current conduction.

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ANODE CURRENT:

| | | | |
|--|---------------------|----------------|-----------|
| Peak | 8 max. | amp | |
| Average* | 1 max. | amp | |
| Overload*, for duration of | } 0.56 sec. | 8 max. | |
| | | 1 sec. | 4.5 max. |
| | | 2 sec. | 2.25 max. |
| | | 3 sec. | 1.5 max. |
| Fault, for duration of 0.1 second maximum. | | 1.13 max. | |
| | | 77 max. | |
| AMBIENT-TEMPERATURE RANGE. | -55 to +75 | °C | |

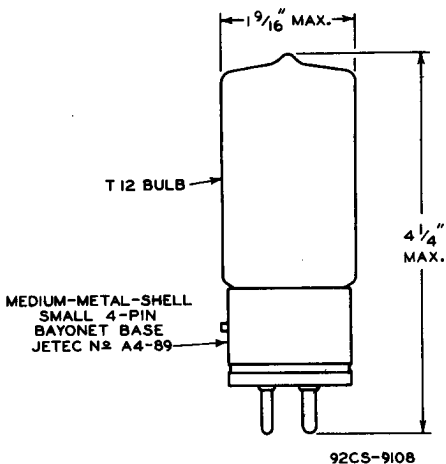
* Averaged over any period of 4.5 seconds.
 * Averaged for duration of overload occurring no more than once in any period of 4.5 seconds.

OPERATING CONSIDERATIONS

Circuit returns may be made to either side of filament or to transformer center-tap.

The anode of the CIK/6014 may show a red color when the tube is operated at full load.

Sufficient anode-circuit resistance, including the tube load, must be used under any conditions of operation to prevent exceeding the current ratings of the tube.





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OPERATIONAL RANGE OF CRITICAL GRID VOLTAGE

RANGE IS FOR CONDITIONS WHERE:
 $E_f = 2.5$ VOLTS AC $\pm 5\%$; CIRCUIT
RETURNS TO FILAMENT TRANSFORMER
CENTER-TAP. THE RANGE INCLUDES
INITIAL AND LIFE VARIATIONS OF INDI-
VIDUAL TUBES. GRID RESISTOR = 0 TO
10000 OHMS. AMBIENT-TEMPERATURE
RANGE = -55 TO $+75^\circ\text{C}$.

