



CIK/6014

XENON THYRATRON

NEGATIVE-CONTROL TRIODE TYPE

CIK

GENERAL DATA

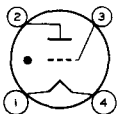
Electrical:

Filament, Coated:	<i>Min.</i>	<i>Av.</i>	<i>Max.</i>	
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 $\mu\mu\text{f}$
Grid to cathode				10 $\mu\mu\text{f}$
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.	40

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. amp 1 sec. 4.5 max. amp 2 sec. 2.25 max. amp 3 sec. 1.5 max. amp 4 sec. 1.13 max. amp	
Fault, for duration of 0.1 second maximum	77 max.	amp
AMBIENT-TEMPERATURE RANGE	-55 to +75	°C

[•] Averaged over any period of 4.5 seconds.

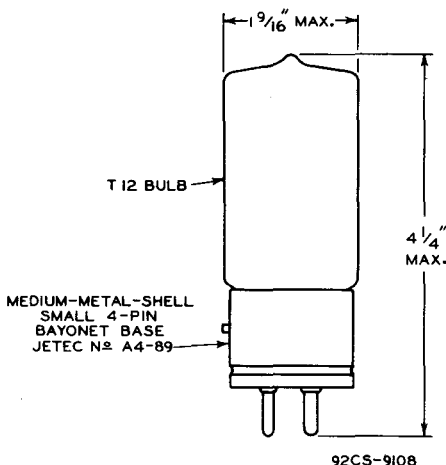
* Averaged for duration of overload occurring no more than once in any period of 4.5 seconds.

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 INDIVIDUAL
TUBES. GRID RESISTOR = 0 TO
10000 OHMS. AMBIENT-TEMPERATURE
RANGE = -55 TO $+75^\circ\text{C}$.

