



C6J

C6J/5C21

XENON THYRATRON

NEGATIVE-CONTROL TRIODE TYPE

GENERAL DATA

Electrical:

Filament, Coated:	Min.	Av.	Max.	
Voltage	2.4	2.5	2.6	ac or dc volts
Current at 2.5 volts. . .	19	21	23	amp
Minimum heating time prior to tube conduction.				60 sec
Direct Interelectrode Capacitances (Approx.):				
Grid to anode				4 μf
Grid to cathode				21 μf
Maximum Deionization Time				1000 μsec
Maximum Critical Grid Current				10 μamp
Anode Voltage Drop:				
Average, at beginning of life				9 volts
Maximum, at end of life				12 volts
Maximum Commutation Factor ¹ , averaged over first 350 volts of inverse anode voltage rise.				0.66 $\text{va}/\mu\text{s}^2$
Grid Control Ratio (Approx.):				
For conditions: 10000-ohm grid resistor, circuit returns to filament transformer center-tap, filament pin 2 negative with respect to filament pin 3 when anode is positive, dc anode voltage, and dc grid voltage.				210

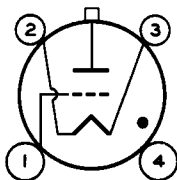
Mechanical:

Mounting Position	Vertical, base down
Maximum Overall Length.	9-1/2"
Maximum Diameter.	2-1/32"
Weight (Approx.)	7 oz
Cap	Medium (JETEC No.C1-5)
Bulb.	T-16
Base.	Medium-Metal-Shell Super-Jumbo 4-Pin (JETEC No.A4-81)
Basing Designation for BOTTOM VIEW.	4BZ

Pin 1 - Grid

Pin 2 - Filament

Pin 3 - Filament



Pin 4 - No Connection

Cap - Anode

GRID-CONTROLLED RECTIFIER SERVICE

Maximum Ratings, Absolute Values:

PEAK ANODE VOLTAGE:

Forward	750 max. volts
Inverse	1250 max. volts

¹: See next page.

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GRID VOLTAGE:

Peak, before tube conduction. -100 max. volts

ANODE CURRENT:

Peak. 77 max. amp

Average. 6.4 max. amp

Overload:

Rating I*, for duration of	0.5 sec.	77 max.	amp
	1 sec.	38.5 max.	amp
	2 sec.	19.2 max.	amp
	3 sec.	12.8 max.	amp
Rating II**, for duration of	4 sec.	9.6 max.	amp
	5 sec.	7.7 max.	amp
	3 sec.	12.8 max.	amp
	4 sec.	11.2 max.	amp
	5 sec.	10.3 max.	amp
	6 sec.	9.6 max.	amp

Fault, for duration of 0.1 second

maximum 770 max. amp

AMBIENT-TEMPERATURE RANGE -55 to +75 °C

• 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.

• Averaged over any period of 6 seconds.

* Averaged over duration of overload occurring no more than once in any period of 6 seconds.

** Averaged over duration of overload occurring no more than once in any period of 30 seconds.

OPERATING CONSIDERATIONS

The *anode* of the C6J/5C2I will show a red color when the tube is operated at full load.

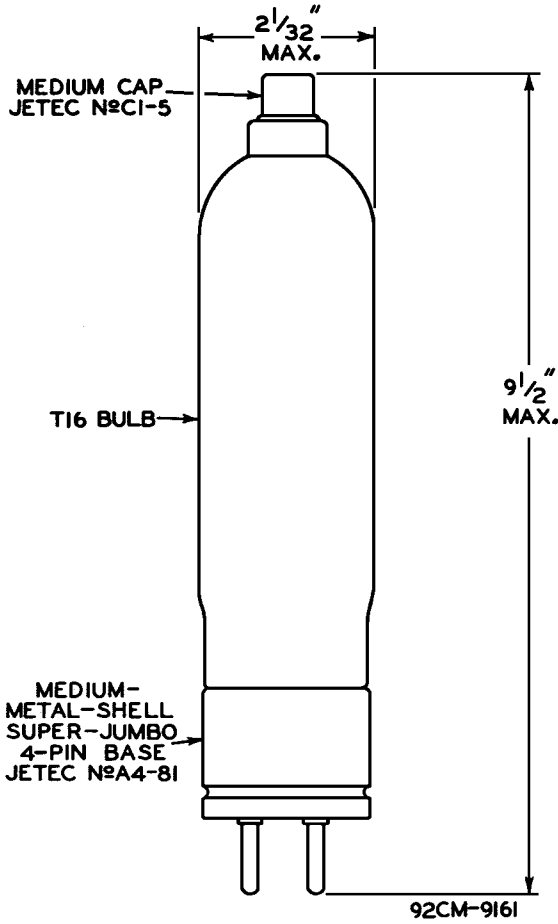
Sufficient *anode-circuit resistance*, including the tube load, must be used under any conditions of operation to prevent exceeding the current ratings of the tube.



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OPERATIONAL RANGE OF CRITICAL GRID VOLTAGE

RANGE IS FOR CONDITIONS WHERE:
 $E_f = 2.5 \text{ VOLTS} \pm 5\%$; CIRCUIT RE-
 TURNS TO CENTER-TAP OF FILAMENT
 TRANSFORMER. FILAMENT VOLTAGE
 AT PIN 2 IS (-) WHEN ANODE VOLTAGE
 IS (+). THE RANGE INCLUDES INITIAL
 AND LIFE VARIATIONS OF INDIVIDUAL
 TUBES. GRID RESISTOR = 0 TO 10000
 OHMS. AMBIENT TEMPERATURE =
 $-55 \text{ TO } +75^\circ\text{C}$.

