



C6J-A

C6J-A/5685

XENON THYRATRON

NEGATIVE-CONTROL TRIODE TYPE

GENERAL DATA

Electrical:

Filament, Coated:	Min.	Au.	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, 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 re- sistor, circuit returns to filament transformer center-tap, filament pin 2 negative with respect to filament pin 3 when anode is posi- tive, dc anode voltage, and dc grid voltage			210	

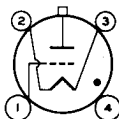
Mechanical:

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 Con-
nection

Cap - Anode

GRID-CONTROLLED RECTIFIER SERVICE

Maximum Ratings, Absolute Values:

PEAK ANODE VOLTAGE:

Forward.	1000 max. volts
Inverse.	1250 max. volts

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
	4 sec	9.6 max.	amp
Rating II**, for duration of.	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-A/5685 will show a red color when the tube is operated at full load.

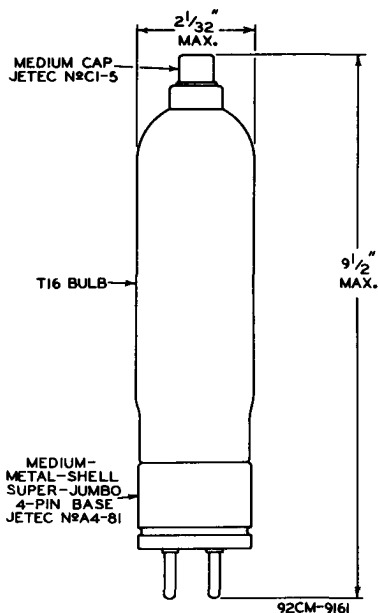
Sufficient *anode-circuit resistance*, including the tube load, must be used under any conditions of operation to prevent exceeding the current ratings of the tube.



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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 =
 $-55 \text{ TO } +75^\circ\text{C}$.

