



C16J

C16J/5665

XENON THYRATRON

NEGATIVE-CONTROL TRIODE TYPE

GENERAL DATA

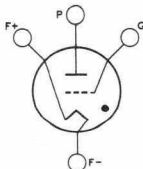
Electrical:

Filament, Coated:	Min.	Av.	Max.	
Voltage.	2.4	2.5	2.6	ac or dc volts
Current at 2.5 volts . . .	28	31	34	amp
Minimum heating time prior to tube conduction.				60 sec
Direct Interelectrode Capacitances (Approx.):				
Grid to anode.			8	μf
Grid to cathode.			29	μf
Maximum Deionization Time.			1000	μsec
Maximum Critical Grid Current.			10	μamp
Anode Voltage Drop:				
Average, at beginning of life.			11	volts
Maximum, at end of life.			14	volts
Maximum Commutation Factor ¹ , averaged over first 330 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 lead F- negative with respect to filament lead F+ during conduction period, dc anode voltage and dc grid voltage			270	

Mechanical:

Mounting Position.	Vertical, base down
Tube and Base Bracket Dimensions . . .	See Dimensional Outline
Weight (Approx.)	14 oz
Bulb	T-20
Terminal Connections	See Dimensional Outline

BOTTOM VIEW

F-- Filament
LeadF+- Filament
Lead

G-- Grid Lead

P-- Anode Lead
(On end oppo-
site bracket)

GRID-CONTROLLED RECTIFIER SERVICE

Maximum Ratings, Absolute Values:

PEAK ANODE VOLTAGE:

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

¹ 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.

C16J



C16J/5665

XENON THYRATRON

GRID VOLTAGE:

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

ANODE CURRENT:

Peak 160 max. 100 max. amp

Average 16 max. 18 max. amp

Overload:

Rating I*, for duration of. .	1 sec.	72 max.	81 max.	amp
	2 sec.	36 max.	40.5 max.	amp
	3 sec.	24 max.	27 max.	amp
	3.5 sec.	21 max.	22.8 max.	amp
	4 sec.	18 max.	20.3 max.	amp
Rating II**, for duration of. .	3 sec.	24 max.	-	amp
	3.5 sec.	23 max.	22.8 max.	amp
	4 sec.	22 max.	22.5 max.	amp
	4.5 sec.	21.3 max.	22 max.	amp

Fault, for duration of

0.1 second maximum 1000 max. 1000 max. amp

AMBIENT-TEMPERATURE RANGE. . . -55 to +75 -55 to +75 °C

• Averaged over any period of 4.5 seconds.

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

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

OPERATING CONSIDERATIONS

The *anode* of the C16J/5665 will show a red color when the tube is operated at full load.

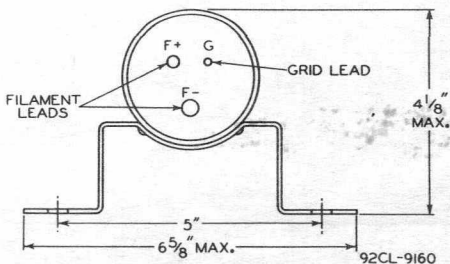
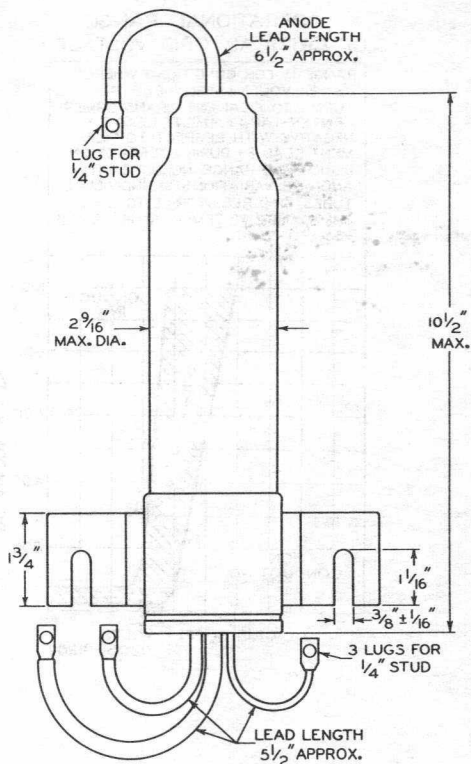
Sufficient *anode-circuit resistance*, including the tube load, must be used under any conditions of operation to prevent exceeding the current ratings of the tube.



C16J

C16J/5665

XENON THYRATRON



C16J



C16J/5665

XENON THYRATRON

OPERATIONAL RANGE
OF CRITICAL GRID VOLTAGE

RANGE IS FOR CONDITIONS WHERE:
 $E_f = 2.5 \text{ VOLTS} \pm 5\%$; CIRCUIT RE-
 TURNS TO FILAMENT TRANSFORMER
 CENTER-TAP; FILAMENT LEAD F-
 NEGATIVE WITH RESPECT TO FILA-
 MENT LEAD F+ DURING CONDUCTION
 PERIOD. THE RANGE INCLUDES INITIAL
 AND LIFE VARIATIONS OF INDIVIDUAL
 TUBES. GRID RESISTOR = 0 TO 10000
 OHMS. AMBIENT TEMPERATURE RANGE
 -55 TO $+75^\circ\text{C}$.

