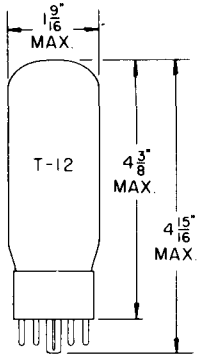
TUNG-SOL

TWIN DIODE



GLASS BULB

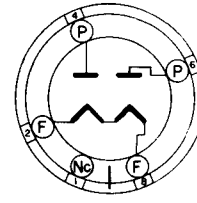
COATED FILAMENT

5.0 VOLTS 2.0 AMP.

AC OR DC

VERTICAL MOUNTING POSITION

HORIZONTAL OPERATION PERMITTED IF PINS 1 & 4 ARE IN A VERTICAL PLANE.



BOTTOM VIEW

MEDIUM SHELL
5 PIN OCTAL
WITH
EXTERNAL BARRIERS

5T

THE 5R4GYA IS A FULL-WAVE HIGH-VACUUM RECTIFIER DESIGNED FOR USE IN POWER SUPPLIES OF HIGH CURRENT REQUIREMENTS. THE TUBE INCORPORATES A LOW-LOSS BASE AND IS CAPABLE OF WITHSTANDING HIGH PEAK INVERSE PLATE VOLTAGES. ELECTRICALLY, THE 5R4GYA IS A REPLACEMENT FOR THE 5R4GY; IT DIFFERS PRIMARILY FROM THE 5R4GYA BY EMPLOYING A STRAIGHT-SIDED T-12 CONSTRUCTION.

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

RECTIFIER SERVICE

FILAMENT VOLTAGE*	5.0	5.0	5.0	VOLTS
MAXIMUM PEAK INVERSE PLATE VOLTAGE NO-LOAD CONDITION[A]	2100	2400	2800	VOLTS
MAXIMUM STEADY-STATE PEAK PLATE CURRENT PER PLATE	650	650	650	MA.
MAXIMUM DC OUTPUT CURRENT				
WITH CAPACITOR-INPUT FILTER	250	175	150	MA.
WITH CHOKE-INPUT FILTER	250	250[B]	175[C]	MA.
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)	210	210	210	°C

* SEE RATING CHART 1 FOR RESTRICTIONS ON APPLYING THE PLATE AND FILAMENT VOLTAGES SIMULTANEOUSLY.

[A] OPERATION WITH PEAK INVERSE PLATE VOLTAGES UP TO 2400 VOLTS MAXIMUM IS PERMITTED AT ALTITUDES UP TO 40000 FEET. OPERATION WITH PEAK INVERSE PLATE VOLTAGES GREATER THAN 2400 AND UP TO 2800 VOLTS IS PERMITTED ONLY WHEN THE ALTITUDE DOES NOT EXCEED 20000 FEET AND THE DC OUTPUT CURRENT IS REDUCED TO THE VALUE INDICATED IN THE MAXIMUM RATINGS.

[B] INPUT CHOKE OF 5 HENRYS MINIMUM REQUIRED FOR 60-CYCLE POWER SUPPLY.

[C] INPUT CHOKE OF 10 HENRYS MINIMUM REQUIRED FOR 60-CYCLE POWER SUPPLY.

CONTINUED ON FOLLOWING PAGE

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TUNG-SOL

CONTINUED FROM PRECEDING PAGE

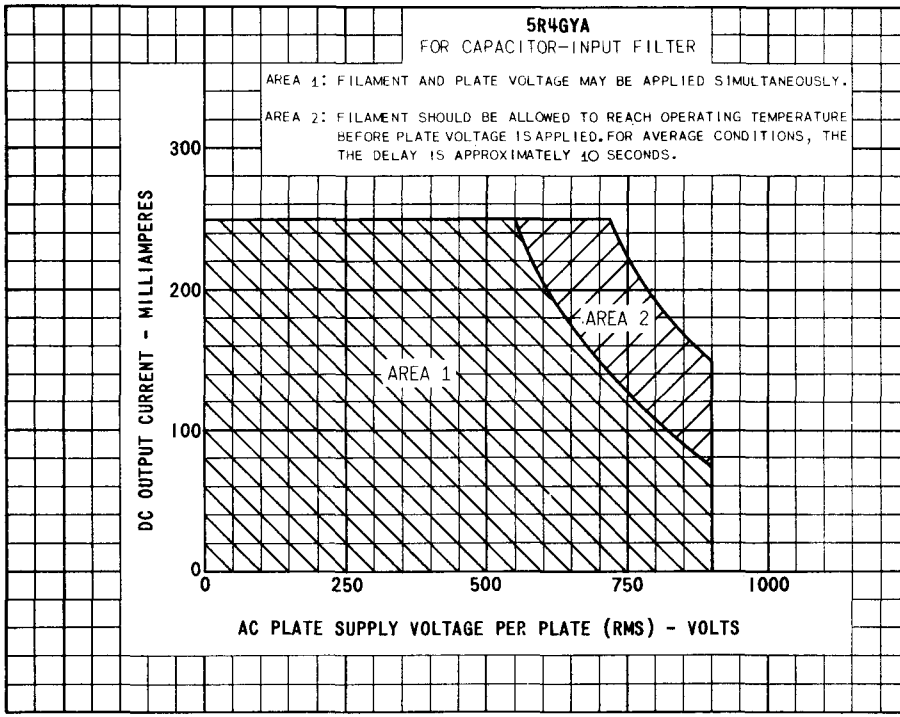
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

FULL-WAVE RECTIFIER WITH CAPACITOR-INPUT FILTER

FILAMENT VOLTAGE	5.0	5.0	5.0	VOLTS
FILAMENT CURRENT	2.0	2.0	2.0	AMP.
AC PLATE-SUPPLY VOLTAGE PER PLATE, RMS				
FULL LOAD	700	750	900	VOLTS
NO LOAD	750	850	1000	VOLTS
FILTER INPUT CAPACITOR	4	4	4	μFD.
TOTAL EFFECTIVE PLATE-SUPPLY IMPEDANCE PER PLATE	125	500	575	OHMS
DC OUTPUT CURRENT	250	150	150	MA.
DC OUTPUT VOLTAGE AT FILTER INPUT				
FOR DC OUTPUT CURRENT OF 75 MA.	---	900	1060	VOLTS
FOR DC OUTPUT CURRENT OF 125 MA.	790	---	---	VOLTS
FOR DC OUTPUT CURRENT OF 150 MA.	---	810	950	VOLTS
FOR DC OUTPUT CURRENT OF 250 MA.	700	---	---	VOLTS

FULL-WAVE RECTIFIER WITH CHOKE-INPUT FILTER

FILMENT VOLTAGE	5.0	5.0	VOLTS
FILAMENT CURRENT	2.0	2.0	AMP.
AC PLATE-SUPPLY VOLTAGE PER PLATE, RMS			
FULL LOAD	750	950	VOLTS
NO LOAD	850	1000	VOLTS
FILTER INPUT CHOKE	5	10	HENRYS
DC OUTPUT CURRENT	250	175	MA.
DC OUTPUT VOLTAGE AT FILTER INPUT			
FOR DC OUTPUT CURRENT OF 87.5 MA.	---	810	VOLTS
FOR DC OUTPUT CURRENT OF 125 MA.	590	---	VOLTS
FOR DC OUTPUT CURRENT OF 175 MA.	---	750	VOLTS
FOR DC OUTPUT CURRENT OF 250 MA.	550	---	VOLTS
TUBE VOLTAGE DROP			
Ib=250 MA. DC PER PLATE		67	VOLTS



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